Clinical Lecture
ON
FRACTURES OF THE PATELLA;
AND ON THE
CHIEF CAUSE OF WANT OF OSSEOUS UNION IN TRANSVERSE FRACTURES, AND HOW TO OBVIATE IT.[1]

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GENTLEMEN,—This morning a man will be brought before you who was admitted into my wards suffering from an ununited fracture of the patella of nine months' standing, and who has already been operated on. On several occasions you had the opportunity of examining his limb previous to the operation, and you remember the difficulty experienced during the operation in bringing the fragments of the patella together. The precise method adopted in lengthening the muscle, which from contraction had become too short, will be explained to you. The patient will show you, by the power which he now has over the limb, how far we have succeeded in setting him right. Before introducing the patient, there are several points suggested by the case which it would be well to refer to: first, as to the absence of osseous union in transverse fractures of the patella, which you know is the rule; and, second, as to the treatment of recent cases of fracture of the patella, as well as those of ununited fracture.

The causes of non-osseous union in transverse fractures of the patella.—There are two causes generally assigned for the frequent want of osseous union of the patella. First, the separation of the fragments by the powerful contractions of the quadriceps extensor muscle; and second, fluid accumulating in the joint, such as blood or serum, causing distension and separation of the fragments. Though these causes do obtain in some cases, yet I have seen others where there was no distension of the joint by either blood or serum; where there was no blood detectable between the fragments on external manipulation; where, during the whole treatment, the extremities of the bone have been kept closely together, and yet bony union was not obtained. Such cases led me to the belief that there was a further cause for the want of osseous union in transverse fracture of the patella. It could not be due to a want of nutrition, nor to a deficiency of ossific reproduction inherent in the patella, as in certain diseased conditions of the patella the ossific deposit is abundant. While seeking for an explanation of this point, I had the opportunity of examining a man who had been accidentally killed by a fall from a roof, and who had sustained, besides other injuries, a simple transverse fracture of the patella. On opening the joint it was seen to be free from blood, though a little did exist between the fragments. The fibrous covering, as well as the aponeurosis of the extensor muscle, were completely torn across. The fragments could be perfectly coapted. On looking closely at the fractured surfaces, the soft parts, from the anterior aspect of the patella, were seen to fold over the fractured extremities, and to have become so intimately adherent to them that it was only after repeated scrapings with the point of a scalpel that the soft parts were elevated. This was especially the case with the upper fragment, whose whole surface, excepting a small part at its inner side, was completely covered. It was plain that osseous union could not take place so long as that closely adherent layer of soft parts remained between the broken extremities, however close the coaptation might be. The soft parts thus placed between the broken fragments consisted of the fibrous tissue covering the bone and the aponeurosis of the extensor muscle. About a year afterwards, a compound comminuted fracture of the patella came under observation, which was examined with much interest. Here, also, the soft parts adherent to the front of the patella were found to have become displaced and driven over the irregular surfaces of the bone. Some of these osseous irregularities transfixed the soft tissue, which seemed to have been stretched tightly over them. At several places there were long shreds of the aponeurosis from the front of the patella lying loosely over the fragments, and stretching beyond these into the joint. The bursa over the patella had been previously somewhat thickened, and was now torn into several pieces. A fragment of the patella, which lay detached, was covered by a portion of the bursa, which, when elevated, exposed a portion of the aponeurotic and fibrous covering of the patella. It was evident that, under these circumstances, osseous union was impossible, unless after removal of these soft structures. This seemed to me to afford a sufficient explanation of the frequent want of osseous union in transverse fractures of the patella.

It may be supposed that this condition would exist only in direct fractures; but a patella fractured by muscular action will also be liable to a similar disposition of the soft parts. The fibrous and aponeurotic tissues lying in front of the patella are more elastic than the bone. By muscular action the bone snaps and retracts, the fibrous and aponeurotic tissues over it still holding they bridge the interspace between the two fragments. If the contraction continues, the aponeurotic and fibrous tissues become overstretched, and lose their resiliency. Finally, if the force be great enough, the bridge gives way, and as the patella retracts the soft tissues on the anterior aspect are pushed inwards by atmospheric pressure, and by the bending of the knee as the patient falls, both tending to drive the overdistended fibrous coverings between the fragments. This is farther effected by the manner in which the proximal portion of the patella retracts. The position of flexion of the knee most favours fracture of the patella by muscular action. When fracture in this position does take place, the irregular posterior patellar surface causes the upper fragment to tilt, so that the plane of the fractured surface lies more anteriorly than antero-posteriorly. As the patella recedes upwards, the tissues on the anterior aspect of the limb press the fibrous and aponeurotic appendages over the fractured extremity, where they are apt to be fixed to the fragment by the osseous projections.

In longitudinal fractures of the patella coaptation is easily secured, and osseous union is obtained. It may be asked whether the same relation of the soft parts to the fractured extremities would not be as likely to exist in longitudinal fractures as in transverse. But the aponeurotic fibres running longitudinally, their long axes being in the direction of the fracture, it would be unlikely to find them so detached that they would dip between the fractured ends. The want of osseous union in transverse fractures of the olecranon, and possibly some of those of the os calcis, though the latter are much less frequently met with, would be subject to the same explanation. Believing that this was the true explanation of want of osseous union in many cases of transverse fracture of the patella, possibly of all those that have been brought into contact and their position afterwards maintained, it was evidently futile to attempt to get osseous union by the old treatment of splints without first having cleared this material from the ends of the fragments. With this aim in view I determined, in all cases of complete transverse fracture which came under my care, to adopt the course of cutting down on the fragments, lifting the soft tissues from between them, and then bringing them accurately together. I had no opportunity of doing so till 1882, when two simple patellar fractures came under observation within two months of each other. Both of these were cut down upon within forty-eight hours of their admission. In both the same state of matters existed as regards the overlapping and close adhesion of the fibrous and aponeurotic coverings of the patella to its fractured extremities. In both cases these were carefully elevated, and the fractured extremities brought together by sutures. In both, osseous union took place without any untoward event, and the limb was restored to its proper function.

CASE 1. *Compound comminuted fracture of the left patella; knee-joint freely opened; occurring in a man affected with delirium tremens; recovery.*—A. S——, aged forty-five years, was admitted into Ward 29, on October 23rd, 1880, suffering from a compound comminuted fracture of the patella, with a wound of the soft parts, three inches in length, which fully exposed the joint. The soft tissues in front of the joint, and in the calf of the leg, were very much bruised. On examining the fragments closely, it was

[1] This lecture was delivered during the spring of 1883.

seen that their fractured surfaces were covered by the aponeurotic and fibrous tissues, from the anterior surface of the patella; several long shreds of the aponeurosis stretching over the fragments into the joint. A portion of the bursa (previously thickened) formed the external covering of a detached fragment of the patella, while its internal covering was made up of the aponeurotic and fibrous tissues. He received this injury by jumping out of a window, of considerable height, while in a state of delirium tremens. On admission he was so maniacal that restraint had to be resorted to, and this condition continued for a fortnight; the limb meanwhile being protected, as well as could be, from his violent efforts. An abscess then formed in the calf of the leg, in the bruised tissue already referred to. There was also slight suppuration of the parts in front of the joint. On November 12th the delirium tremens having passed off, two drainage apertures were made in the posterior aspect of the joint, the one on its inner, the other on its outer side, into which decalcified chicken bone drainage-tubes were inserted. The fragments of the patella were then exposed, one or two small portions which were loose were removed; the fibrous and aponeurotic tissues were carefully elevated from the broken surfaces of the three main fragments, into which the patella was divided. These portions of bone were then brought together by chromic gut sutures. The wound in the soft parts healed quickly. In ten weeks, the patella being firmly united by osseous union, the patient was allowed to rise. There was then considerable stiffness in the knee-joint. On two occasions afterwards, in August and December, 1881, he was seen. The patella was then firmly united; he could walk about freely, and though the movements of the joint had improved, there was still considerable stiffness.

CASE 2. *Simple transverse fracture of patella; effusion of blood into the joint; removal of fibrous and aponeurotic tissue from between the fragments; suture; osseous union; perfect movement of knee-joint.*—J. H——, aged twenty-four years, was admitted into Ward 29 on April 6th, 1882, suffering from a series of injuries to the head (fracture of skull) and abdomen, as well as a simple multiple fracture of the left patella, with considerable effusion of blood into the knee-joint. He received these injuries by falling from the roof of a house. The patella was divided into three portions, the bone being fractured transversely just below its centre, the distal portion being divided longitudinally. On the day after admission a longitudinal incision was made over the joint, the fragments of bone being exposed. The fibrous structures, from the anterior aspect of the patella, had become detached, and lay over the transversely fractured surfaces; but the longitudinal fracture was free from these shreds, except at its upper extremity, where some of the fibres which had been torn across (transversely) were twisted, and lay between the ends of the bones. While the patient was under chloroform, lying with his leg extended, the upper fragment of the patella lay within one inch of the lower fragments, and could be brought into contact with them by very slight force. The fibrous expansion attached to either side of the patella, as well as the soft structures in front, were completely severed. These fibrous and aponeurotic tissues were carefully elevated from between the fragments. The outer and inner posterior aspects of the joint were drilled for drainage. Chicken bone tubes threaded with hair were inserted. The patellar fragments were united with strong silver wire. The wound was stitched with chromic gut and placed on an osteotomy splint. Six days after the operation the wound was dressed for the first time. There was no blush round the wound and no discharge from it. The hair was removed from the drainage-tubes. A small quantity of serum and synovial fluid escaped from the joint through the tubes. On April 24th the wound was dressed for the second time. It was then healed except the small aperture, from which the patellar suture protruded. The drainage-tubes had disappeared. At the end of the sixth week the silver wires uniting the fragments were removed. In ten weeks the patient was allowed up. The bone was found closely and firmly united by osseous union. He could walk about with ease, though there was at first a little stiffness. No forcible straightening was resorted to. During the whole course of his illness his temperature never rose above normal, except during the first three nights, when the rectal temperature indicated about 100°F. Six months afterwards he walked without halt. [This patient has been seen within the last few days. He says he can walk thirty miles at a time without being unduly tired. He can run up and down stairs easily, and can work at his trade (a slater) as before.]

CASE 3. *Simple multiple fracture of the patella; fibrous and aponeurotic tissue between the fractured extremities; elevation of these; suture; osseous union; good movement.*—R. A——, aged forty years, the subject of melancholia, was admitted into Ward 29 on June 20th, 1882, affected with a fracture of the patella received while endeavouring to prevent himself falling, as he slipped when walking along the street. The lower third of the patella was broken off transversely, and was longitudinally divided into two, a considerable gap existing between them and the upper fragment. An incision was made at once over the joint and the patellar fragments exposed. The fibrous and aponeurotic tissues from the anterior aspect of the patella were found to cover the transversely fractured portions in such a way as to preclude the possibility of osseous union. The longitudinally fractured surfaces were quite free from any interposition of the soft parts. As the limb lay in an extended position, while the patient was under the influence of the anæsthetic, the upper fragment was brought by the fingers into contact with the lower fragments. After doing so, a very slight force sufficed to keep them in contact, and when they were left alone they did not separate more than half an inch from each other, although at first there was a distance of more than three inches between the fragments. Two drainage apertures were made into the posterior aspect of the joint, through which chicken bone tubes threaded with hair were inserted. The fragments of the patella were then brought together by sutures of chromic gut (one to five a week). The wound was closed with chromic gut (one to five for four days.) On the seventh day the wound was dressed for the first time, when it looked well. There was a slight serous oozing from the margin of one of the sutures. The hair was removed from the tubes; in doing so a few drops of serous fluid escaped from one of them. At the end of a fortnight the wound was dressed a second time and found healed. The superficial gut stitches were found lying loose on the skin. There was no discharge of pus, and the temperature never rose above normal. In six weeks the patella seemed firmly united. In ten weeks he was permitted to rise and move about. His patella was then firmly fixed by osseous union. His mental condition had, however, not improved by his confinement to bed, and it was difficult to get him to exercise himself. At the end of thirteen weeks he was again examined. The patella was firmly united by osseous union. The flexion, however, was limited to an angle of about 45°. Six months after he was reported to have been able to walk considerable distances, and the power of flexion had much improved, so that he was able to walk without any halt, and to bend his knee to nearly a right angle. Forcible straightening had not been resorted to. He promised to report himself again, but he has not since been heard of.

CASE 4. *Ununited transverse fracture of the patella of nine months' standing; gap of six inches between the fragments; operation; method of lengthening the muscle; refreshing of fractured surfaces; suture; osseous union; free movement of joint.*—T. D——, aged twenty years, was admitted into Ward 21, Nov. 27th, 1882, suffering from an ununited transverse fracture of the patella, of over nine months' standing. He had been treated in another place by the ordinary method, with splints, and for the ordinary time. Ligamentous union was believed to have been obtained, and the patient was dismissed. On admission to my wards the patient stated that he found he could not trust his leg. When attempting to walk without a back splint, his leg required to be kept straight and stiff; if it accidentally bent, or knocked against anything, it gave way, and he was apt to tumble. In this state he could not engage in work, and sought relief for his condition. On examining the part, a great gap existed between the fragments. When the limb was in the position of full extension, a gap of six inches existed between the upper and lower fragments of the patella. When attempting to approximate the upper fragment by external manipulation, it was found that it could be brought to within five inches of the lower fragment. A longitudinal incision was made, six inches in length, over the anterior aspect of the limb, exposing the fragments. There did not seem to be any bond of union between the fragments, though there were fibrous prolongations extending from the proximal fragment for some inches, as if a previous fibrous union had been elongated and then torn. The articulating surfaces were much reddened. The edges

of both fragments were refreshed, and the quadriceps was freed from adhesions, which had formed between its lower border and the muscles underneath; after which the upper fragment was attempted to be brought into contact with the lower. After all the appliances and force at our disposal had been brought into requisition, there was still an interval of two inches existing between them. If the operation was to succeed, something further had to be done. The quadriceps was evidently broader than natural. It had increased in breadth at the expense of its length. It was thought advisable to increase its length at the expense of its breadth. Transverse incisions would weaken the muscle. To effect the purpose and obviate the weakening of the muscle, several rows of V-shaped incisions were made in the muscle in a transverse manner. These cuneiform incisions when made, formed gaps in the muscle, which were obliterated when the muscle was put on the stretch. In this way the muscle was extended until the posterior border of the upper fragment could be brought to touch the under fragment. The posterior surface of the joint was drilled in two places for the purpose of drainage. Into these apertures chicken bone tubes threaded with hair were introduced. The fragments were then brought together by strong silver wire sutures, several stitches being inserted to distribute the strain. The wound was brought together by chromic gut (one to five a week). The first two nights after the operation his temperature was a few points above 100° F. (rectal temperature). Afterwards it remained normal throughout. The wound healed quickly, with the exception of a small granulating surface at the part where the wires issued. On Dec. 29th the wires were removed—that was, twenty-six days after their insertion. In five days after this small granulating surface was healed. At the end of six weeks the bone was gently examined, and appeared firm. He was kept in bed for ten weeks, and then was only permitted to rise with a back-splint of Gooch. His patella was then firmly soldered by osseous union; but as the quadriceps was very firm, and stood out as if still on the stretch, it was deemed expedient to keep the splint on for some time longer. There was no attempt at forcible movements. He has been encouraged to practise the movements of his knee-joint, at first when in bed, and afterwards while up and walking You now see that he is able to walk without a halt, though he cannot bend his knee very far as yet. He is going to the convalescent home, and when he returns he will be able to bend his joint much further. [This patient was seen since this lecture was delivered on several occasions. The last time he stated that he was able to work quite well and walk considerable distances, and also to bend his knee to a right angle.]

From these observations the following may be formulated:—1. The chief cause of non-osseous union of the patella in cases of transverse fractures is the interposition of fibrous and aponeurotic structures between the fractured surfaces. 2. If osseous union be desired in transverse fractures of the patella, it is requisite, in the first instance, to elevate all the tissues which lie over the fractured surfaces, and which prevent them from coming into intimate contact. 3. From the ease in which the two fragments, in many instances, may be maintained in position, it is probable that osseous union could be obtained without suturing, provided these soft tissues were first elevated. Practically, however, suturing the patella ought to be adopted, as it is the easiest and surest way of securing accurate apposition and adds no risk to the operation. 4. The operation of elevating the soft structures between the fragments and of suturing the bone ought to be undertaken within the first forty-eight hours from the time of injury. 5. In order to lengthen a muscle, a series of V-shaped incisions made into its substance in a transverse row will effect the purpose, while not diminishing its strength as transvere incisions do.

Since this lecture was delivered a case of transverse fracture of the olecranon came under notice, which is here given in a few words.

CASE 5. *Transverse fracture of the olecranon; aponeurotic tissue between the fragments; elevation of these and suture; recovery with osseous union and useful limb.*—J. L——, aged twenty-four years, was admitted on March 27th, 1883, suffering from a simple multiple fracture of the olecranon, which he received by an accidental blow, though the precise mechanism of the injury could not be ascertained. There was a considerable gap between the fragments—fully two inches as the limb lay straight. An incision was made over the olecranon, exposing the fragments. A portion of the lower fragment was detached and twisted, so that its articular facet lay, with its cartilaginous surface in contact with the fractured surface of the neighbouring fragment. Over the upper fragment a dense layer of fibrous tissue lay over its broken extremity, and was intimately adherent to it. Osseous union could not have taken place as long as this state of the soft parts remained in relation to the bone. These soft structures were elevated from the bone. The fragments were then united with silver wire, and the superficial wound with chromic gut (one to five a week). At the second dressing the wound was healed. There was never any increase of temperature. There was no pus formation. He ultimately had a strong useful arm, the movements being very free, whilst there was firm osseous union.

IDIOPATHIC (PROGRESSIVE PERNICIOUS) ANÆMIA, AND ITS SUCCESSFUL TREATMENT.

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(*Concluded from page 813.*)

IN contrast with the foregoing I may now take a brief review of the results of treatment during the second of the two periods I have referred to, and will first notice Dr. Bramwell's experience. His first case[1] had all the marked and now well-known distinctive features of the disease. The patient was treated during three weeks, first with quinine (five-grain doses) and tincture of the perchloride of iron; afterwards phosphorised cod-liver oil was added. Under this treatment he was noted (Dec. 15th) as gradually getting worse. Iron, quinine, &c., were discontinued, and two minims of the arsenical solution three times a day were prescribed. The after-progress is described as one of "slow but uninterrupted improvement," the dose of arsenical solution having been gradually increased to sixteen minims. In a month (Jan. 20th) after first taking the arsenic he was discharged, and attended as an out-patient. He continued to take it until the end of April, "when he considered himself perfectly well." The following is a short abstract of the treatment and results of his other cases.[2]

CASE 2.—First treated by tincture of perchloride of iron; getting worse; iron discontinued and arsenic prescribed; improved, and in one month sent to convalescent home. Recovered.

CASES 3 and 4.—In one quinine was ordered on June 10th; afterwards tincture of perchloride of iron on the 17th; much worse on the 18th; died on the 25th. Arsenic was not tried. In the other case the diarrhœa was treated and checked from Aug. 16th to 20th; quinine (eight grains three times a day) was prescribed on the 20th; on the 28th there was a recurrence of the diarrhœa; died on Sept. 1st. Arsenic not tried.

CASE 5.—Treatment consisted of iron, quinine, cod-liver oil, lime-juice, and arsenic, in the order named. Improved slowly at first under quinine; "improvement marked and rapid after arsenic." Recovered.

CASE 6.—Arsenic was at first given; discontinued owing to sickness; carbonate of iron prescribed. Recovered.

The summary of the six cases is as follows:—Three were cured under arsenic; iron and quinine previously tried and failed. One was cured while taking carbonate of iron; arsenic previously taken. Two died after treatment by iron and quinine; arsenic not given.

In a clinical lecture[3] Dr. Finny has published three well-marked cases of the disease.

CASE 1.—During three and a half months, "in spite of every treatment, the debility became more pronounced." "Acting on the indication for iron, this was administered in every form and in the fullest doses, without seemingly any, even the slightest, benefit. It was some time before a positive diagnosis was arrived at; not until the blood had been examined, and the treatment by iron had utterly failed to justify its continuance." Fowler's solution (three minim doses) was then given (March 15th), subsequently increased

[1] Med. Times and Gaz., Sept. 1877.
[2] Med. Times and Gaz. and Edin. Med. Jour., 1877.
[3] British Medical Journal, 1880.

to four and five in infusion of gentian. "In less than a week improvement became manifest." This improvement went on steadily, and he was able to leave the hospital for the House of Rest on April 30th. He was under observation for eighteen months afterwards, continuing well and engaged in active employment.

CASE 2.—This case had been under medical treatment in two other hospitals, and discharged as incurable. Tried to get into the Hospital for Incurables as a case of cancer of the stomach. Admitted into the City of Dublin Hospital on August 1st, 1878. Arsenic with iron, nux vomica, and calumba were at once prescribed; bismuth and lactopeptine also, on account of gastric symptoms. Improvement showed itself at first by arrest of vomiting. In two months he left the hospital, and ultimately quite recovered.

CASE 3.—In this case arsenic and iron were at once prescribed, and continued ten days, but discontinued owing to rise of temperature and sickness followed by diarrhœa, with alarming prostration. Stimulants and astringents were given, but the patient sank exhausted by diarrhœa and pyrexia, the case "being thus brought to a rapid close."

Here two out of three cases recovered under arsenic, the third succumbing to an exhausting complication.

Three distinct cases of the disease are reported by Dr. Lockie.[4] Two of them got well under arsenic—one in about three months, the other in two months, and the third "gradually and steadily improved." All had taken iron in various forms, also nux vomica and phosphorus, without relief. The last was benefited by mineral acid and pepsine after ligature of piles.

An interesting case is also published by Dr. Broadbent,[5] in which the patient had been in the infirmary for six weeks without benefit. As he "had no doubt taken already quantities of iron, which in these cases was of little use," he was ordered two minims of Fowler's solution and seven minims of tincture of digitalis, three times a day. During the progress of the case the arsenic was increased gradually up to four minims six times a day, the digitalis omitted. He steadily improved, and in a week later was discharged cured. "The failure of iron to do good, and the rapid improvement during the administration of arsenic, were remarkable." In little more than two months the patient passed from extreme anæmia to apparently perfect health, and was well and strong for some months after, while under observation.

I will mention one more case, which occurred in the practice of Dr. Withers-Moore,[6] one of profound anæmia and prostration, in which for the first three months iron was tried in various forms without any benefit whatever. For the last two months three minims of Fowler's solution were given thrice daily, and she left convalescent. She had occasional hyperpyrexia, for which quinine was given with advantage.

With this mass of evidence of the undoubted power possessed by this agent in controlling and subduing this disease and restoring the subjects of it to health, whatever the source and explanation of this power may be, it is surprising to find how little its value and importance are realised or appreciated at the present time. A recent case is published[7] in which "the treatment hitherto had been iron and nutritious diet," with the usual sequel, "the patient's condition having steadily become worse," and, in spite of transfusion and a consequent increase of corpuscular percentage in the blood, death. Arsenic was not tried.

As a remedy for this hitherto and, with other treatment, fatal disease, this medicine (arsenic) is either altogether ignored, or but cursorily noticed, in nearly all our best and most recent treatises on medicine and therapeutics. That it is so is apparent from the following references and quotations with regard to prognosis and treatment. In our latest, and on the whole excellent, compendium of medical science, the Dictionary of Medicine, Sept. 1882, edited by Dr. Quain, under "Progressive Pernicious Anæmia" the entire subject of treatment is disposed of in the following sentence: "Treatment must be ordered on general principles; transfusion has been frequently tried, but without success." This comprises the whole of the information given under this head. In the same article it is said "the course of the disease is steadily towards death, in which it generally terminates." It is also spoken of as a malady "which attracts attention by its resistance to treatment, and its fatal termination," and one "the prognosis of which is as unfavourable as possible." In Dr. F. Roberts' "Handbook of Medicine," fourth edition, 1880, the "treatment" is thus given: "In idiopathic, and still more in pernicious, anæmia, remedies have little or no effect. Transfusion has been performed in many instances, but without success." Not having seen the last edition of this work, just published, I cannot say whether the above has been added to or modified. Aitken ("Science and Practice of Medicine," seventh edition, 1880) entirely ignores the treatment of this disease, and refers to it as "a form of chlorosis described by Lebert under the name of essential or idiopathic anæmia, particularly in pregnant women." Bristowe, fourth edition, 1882, speaks of two forms of anæmia, one chlorosis; "the other arising under other conditions, almost always fatal, and described as idiopathic," &c. The latter is characterised, among other things, "by its almost invariably fatal result, usually in from six to twelve months." After describing the treatment of chlorosis by iron, &c., the following sentence occurs: "In so-called pernicious anæmia all the usual remedies appear to fail," and this is all that is said about it. The use of arsenic is not noticed. The directions for treatment in Dr. Austin Flint's "Principles and Practice of Medicine," fifth edition, 1881, are equally unsatisfactory. Its "objects and general principles" are said to be "sufficiently obvious"—viz., "the removal of all causes which may have produced the disease or which render it progressive, and the substitution for these causes of all agents and influences which affect *un*favourably [this is, no doubt, a typographical error] the functions concerned in assimilation and nutrition." "The same principles are involved as in the treatment of anæmia in all the grave diseases affecting the hæmatopoietic system." Transfusion of blood is alluded to as "an extreme measure, thus far without encouragement to expect from it more than a temporary advantage." This includes a summary of all that is said about treatment. Bartholow, "Practice of Medicine," second edition, 1881, in his definition, describes the disease as "a form of anæmia, progressive and fatal," and also applies to it the term "malignant." Again: "Prognosis highly unfavourable, *no cases of cure having been reported.*" "Anæmic symptoms require iron, but if hæmorrhages are occurring it must be discontinued," and arsenic is spoken of in the same category with ergot and quinine, as that which may be substituted. "Unfortunately, thus far no results have followed the treatment, and the cases have pursued their evil course until the end." In 1882, however, in his "Therapeutics," he speaks favourably of arsenic in chlorosis and anæmia, but idiopathic anæmia, as a distinct affection, is not here recognised. In the same strain as the foregoing writes Dr. Immerman in his elaborate article in "Ziemssen's Cyclopædia," where he "insists on the inefficacy of every kind of treatment, regarding every case as tending inevitably to a lethal issue," and where with a "strengthening dietary reliance is to be placed on large doses of wine, iron, quinine, &c., and, above all, transfusion;" but that not one of these "appears capable of appreciably delaying the fatal issue. Indeed, the absolute fruitlessness of all tonic treatment, and the uninterrupted progress of the disease towards death, are the essential characters of this peculiar affection. The name given to it by Biermer would cease to be applicable were our therapeutic efforts capable of achieving any measure of success." In a supplement, however, to this work, edited by Dr. Peabody (1881), arsenic combined with iron is spoken of with some encouragement, and, from reports, as deserving of repeated trials. Lastly, Niemeyer (vol. ii., 1881) says: "Treatment has proved unsatisfactory; even the cases ending in recovery seem to have done so spontaneously. We can do little more than remove injurious influences, and give good diet, air, and tonics, especially iron." It is also said: "In some of these forms of anæmia arsenic by the mouth or subcutaneously is reputed to be very efficacious; but it has not yet been sufficiently tried to enable us to say in which cases it will do good and in which it will fail."

In nearly all our best authorities on therapeutics we find the same silence with regard to the use of arsenic in this disease: such as Ringer, ninth edition, 1882; Farquharson, third edition, 1883; Garrod ninth edition, 1882; H. C. Wood, third edition, 1880; unless the statement by the latter that "it is useful in anæmia when that is a prominent condition in chronic malarial dyscrasia" may be taken to mean this. I will not multiply quotations, having, I fear, extended these too far already. The only

[4] British Medical Journal, 1878. [5] Ibid., 1880.
[6] Ibid., 1881. [7] Ibid., June 9th, 1883.

treatise in which I can find anything like a due recognition of the value of this medicine is in Phillips' "Materia Medica and Therapeutics," 1882, where he refers to several cases in which it was successful, having previously spoken of the disease as one that "has usually ended fatally by exhaustion and collapse in spite of iron, food," &c. Such, then, being the general view taken by the profession with regard to the fatality of the malady and the uselessness of treatment, as reflected in our best literature, it is time, I think, that those who, like myself, may in the course of their practice be brought into contact with it, and may seek, and seek in vain, for counsel to guide them in the pages of our most recent and approved authorities, should have placed prominently before them the only treatment as yet attended by a fair degree of success, and their despair converted into a reasonable amount of hope. That such hope would not be unfounded will, I believe, be seen from the data I have brought forward, and from the following summary which I have drawn up from such data, and which, I think, would justify us in saying that the "name given to the disease by Biermer" *does* now "cease to be applicable."

Of forty-eight cases treated without arsenic, or treatment not recorded, forty-two were fatal, two under treatment (getting worse), three result not known, one recovered (clearly a case of leukæmia); authorities—Hobson, Coupland, Mackenzie, Bramwell, and Barclay. Of twenty-two cases treated by arsenic, sixteen recovered, two improved, and four proved fatal; authorities—Hobson, Coupland, Bramwell, Finny, Broadbent, Withers-Moore, Lockie, and Padley. In the whole list there is not, with one exception, a single authentic case of recovery in which arsenic did not form a chief part of the treatment; and in the exceptional case arsenic was first given and carbonate of iron followed. As Dr. Hobson's collection evidently includes most of the cases given in Dr. Taylor's paper, and probably some in Dr. Pye-Smith's *résumé*, as well as some cases published by Dr. Wilks in Guy's Hospital Reports, I have excluded these. It is also possible that there may be some other cases of repetition from a similar cause, but this would not affect the general conclusion. I may here refer to a case reported[8] as one of "pernicious anæmia," in which recovery took place after the administration of a pill containing morphia, creasote, and nux vomica, followed by citrate of iron and quinine and cod-liver oil. There is nothing, however, by which to identify this case as one of the disease in question, and the description generally does not accord with our conception of it. It was thought to be a case of malignant disease until a gain of sixteen pounds in fourteen days followed by recovery disproved this idea. A simple anæmic state dependent on some gastric disorder would, I think, have been the more correct diagnosis in this case.

I did not intend in this paper to touch upon any pathological question, but I could not help being struck with the marked discrepancy existing between the influence upon the blood of arsenic when taken in a state of health, or its physiological action, and when administered in the disease under consideration, its therapeutical action. I mean the diminution of the red blood-corpuscles in the former case, and their increase, as well as improvement, in the latter. Thus Phillips quotes the case of a gentleman suffering from cerebral congestion, the result of plethora, who was relieved by arsenical treatment, which materially reduced the amount of blood-clot and the number of corpuscles; and he adduces other instances. This, among other things, would seem to point to the primary influence of the medicine being exercised upon the ganglionic nervous system, in favour of which there is certainly much to be said.

The chief practical conclusions to be drawn from what has been here advanced are:—That in arsenic we have a medicine exercising what may almost be termed a specific action in "idiopathic anæmia;" that in a clearly recognised case it is useless, and worse than useless, pouring in iron, and, unless as auxiliaries, other tonics; that arsenic appears to act best in its simple and uncombined form, and that its action is rather interfered with than otherwise by combination with iron; that the failure of iron—so potent in other forms of anæmia—serves as a kind of therapeutic diagnostic between these and idiopathic anæmia; and that the prognosis and directions for treatment of our chief authorities on medicine and therapeutics are, I say it with all deference, misleading and unduly discouraging, inasmuch as they are either altogether silent upon, or enumerate cursorily with other medicines, the only agent which appears to have exercised a real and essential influence upon the disease, and which has undoubtedly been the means of rescuing a large proportion of sufferers from its otherwise deadly power.

As an addendum to this paper, written in June last, I may state that I have since heard twice from my patient—the last time about ten days ago, that is about seven months from the time of my first seeing him,—and that he has continued to progress favourably in all respects.

Swansea.

[8] Ibid., 1882.

A MEDICO-LEGAL MYSTERY.

By W. WYNN WESTCOTT, M.B. Lond.,
DEPUTY CORONER FOR CENTRAL MIDDLESEX;
AND
SAMUEL LLOYD,
SURGEON, E DIVISION OF POLICE.

THE following notes of a mysterious death are offered to the profession because they show the peculiar difficulties which are often encountered in trying to solve the problem of how death has been caused, and also at what time it occurred. Our only regret is that we are unable to fix in this case either the cause of the injuries found at the post-mortem examination, or the time at which death took place. The deceased was a married woman, aged sixty-one years, living alone with her husband, who was a tailor. Both were addicted to intemperance; the husband was of courteous demeanour to his wife when they were both sober, but when intoxicated had differences at times, as is usual in such cases. From the evidence offered at the coroner's inquest before Dr. Wynn Westcott, we abstract the following particulars. Both husband and wife were in their usual health during a certain Sunday, but in the evening they were both the worse for liquor. During the Sunday night the next door neighbour heard snatches of drunken singing, commencing about midnight, and she states that she recognised the voice of the husband singing at short intervals up to 5 A.M. on Monday morning, she being restless during the night, and disturbed by the singing. She heard no quarrelling, nor cries of suffering. We should state that the ground-floor front room was used as the tailor's shop, and the remainder of the house was the dwelling of the deceased and her husband. It is an old-fashioned house, with a small enclosed yard behind, and the staircases arranged in short flights of about nine steps, the outer edge of each flush with the next above, so that it is almost impossible for a person on the first floor to fall on to the ground floor, and quite impossible to see the ground floor from the first-floor landing. The adjacent house on one side is at present empty; that on the other side was the home of the neighbour who overheard the singing. About 9 A.M. on the Monday morning, the son-in-law, who was in partnership with the husband of the deceased woman, and who lived with his wife at a distance from his place of business, arrived as usual at the house of the deceased, and noticed with surprise that the blinds of the shop window were still in their Sunday condition, closed. Having a latch-key, and finding the door not bolted, he entered, and perceived the door at the further end of the passage leading into the courtyard open. Midway in the passage, where there are two steps near the foot of the first-floor staircase, he saw his mother-in-law lying apparently dead or insensible, and, noticing two small pools of blood between him and her, he retreated to the street and called in a neighbour who happened to be at her door. She then joined him in looking at the body, and, judging her to be dead, they both left, and he closed the street door and went for a medical man. Mr. Lloyd and his assistant returned with the son-in-law and entered the passage.

The deceased was found to be quite dead and cold, and the rigor mortis perfectly developed. She was dressed in every-day costume, lying with her buttocks on a mat at the foot of the two stairs, reclining against them on her right side, her back to the wall. It was then noticed that although the back of her head just touched the wall, it was not supported by anything, and had not dropped upon her right shoulder. A rectangular wound was found on the scalp near the occipital protuberance; this was still wet with

blood, and there was a mark of blood on the wall where the head was resting. Between the front door and the body and about one or two feet from it were two small pools of clotted blood. Neither the hands nor the shoes of the deceased were bloody, and there were no bloody footmarks, nor any blood on any other part of deceased, nor on her clothes. There were no other marks of violence visible, nor any signs of a struggle whatever. Beneath the body was found an old pewter tall candlestick; this had no recent crack or injury, nor blood-stain. Near the pools of blood was a candle, which had been lighted at some time; it was crushed by pressure, and adhering to it was a coil of twine. It was adherent to the floor and was discoloured, perhaps by blood. No weapon and nothing else unusual was found on the ground floor. Upstairs it was found that the bedroom was undisturbed, the bed had not been slept in. On entering the front downstairs room the husband was found lying on a sofa apparently insensible from drink. Bottles and glasses containing small quantities of beer and rum were on the table. The windows were not curtained nor were the shutters closed, nor was the gas alight. Everything appeared as if the room had not been lighted up the previous evening. There were no signs of any struggle having occurred, and no marks of blood on anything, except that on the mantelpiece was a clay pipe which bore stains of bloody fingers. In the back kitchen sink were two small vessels containing fluid: in one (a small tureen) the liquid was pink, and was found to be stained with blood. The husband, who was dressed in every-day clothes, was aroused and told of his wife's death. He only answered, "I know nothing about it." Blood-stains were found on his hands and on his face, which bore marks of scratches and some shaving scars; there were blood-stains also on his waistcoat and on the front of his trousers, on one stocking, and on one shirt-sleeve, but the coat was clean, and the inside of the coat-sleeve corresponding to the stained shirt-sleeve was clean. His clothing was not torn, and there were no marks of any struggle having taken place. The inspector of police next arrived, and to him the husband stated, after being cautioned, that "he had gone to pick her up; she had asked him for some brandy; he had gone down to fetch it, but had fallen asleep and forgotten all about it." The husband, however, was still partially insensible from drink throughout the morning. He was arrested and charged with causing the death, and remanded until the verdict of the coroner's jury had been given. The effect of which proceeding was of course to prevent his giving any evidence at the inquest. On an examination of his clothing it was found that the blood-stain of the trousers bore evidence of an attempt having been made to wash out the stains, but this was not the case with the other stains on the clothes.

At a post-mortem examination of the body, made by Mr. Lloyd, twenty-six hours after the discovery of the body, the following notes were taken:—Age about sixty, body well nourished, weight about twelve stone; no external marks of violence except the wound of the scalp before mentioned, which was of rectangular shape, its two sides about one-third of an inch long each; it was situated just above the occipital protuberance, it did not extend down to the bone. There was some bruising of the scalp around it, but no fracture of the skull, and the brain was found to be quite healthy and free from injury. The lungs were congested and emphysematous; there were some old adhesions on the right side. The diaphragm was ruptured, and the greater part of the stomach and the spleen had passed through the rent into the left pleural cavity. The ribs, from the third to the ninth on the left side, were all broken, the fractures forming an even line extending downwards and outwards from about one inch external to the junction of the third rib, with its costal cartilage. The broken ends of the ribs had not punctured the pleura, but there was extravasation of blood around them. The heart exhibited concentric hypertrophy of the left ventricle; there were atheromatous patches on the intima. The lining membrane of the stomach was reddened, the liver cirrhosed, the kidneys more vascular than usual, their capsules adherent, and their surface nodular.

In answer to questions put by the coroner the medical witness stated that the effects of such terrible injuries to the diaphragm and displacement of the viscera must have been to cause sudden death, possibly without any audible cry; that the injury must have been caused by a sudden violent compression of the body against a resisting even edge, such as the edge of a stair or a banister rail, or else by an excessively violent blow by a long blunt weapon. Further, that the scalp wound was not sufficient to cause the death, although it might account for all the blood found. He did not consider the scalp wound had been caused by the candlestick produced, because it was uninjured and clean, and because it was of too brittle a metal not to show signs of violence. And, finally, considering the formation of the staircases precluding the idea of a fall from a height, and in the absence of any weapon, he was unable to assign any probable cause of the injuries. Being questioned as to the time at which death occurred, he stated that it was almost impossible to guess, from the fact that the body was in a sense absolutely cold and the cadaveric rigidity perfect; the deceased must have been dead for some hours before 9 A.M. on Monday. She might have been dead since sunset on Sunday evening. He considered, however, that it was certain that the body had been moved since the rigor mortis had set in, because when found the stiffened neck was supporting the head; this appearance could not have existed if the person had died in the situation where she was found. Hence he concluded that some person, probably the blood-stained husband, had moved the body some hours after death from the position in which she had died and stiffened to where the body was found. The coroner's jury having been assured that no further evidence was likely to be forthcoming unavoidably returned a verdict of "Death from injuries described by the medical witness, but how these had been caused there was no evidence to show." The magistrate having heard the verdict of the coroner's jury, dismissed the husband from custody immediately, and so rests at present this mysterious case.

We cannot but think that if such cases as this one were more often reported in the medical journals much light might be thrown on the undecided questions of how soon after death the rigor mortis comes on, and how long it may last, taking into consideration the mode of death, the bodily health of the deceased, the presence or absence of intoxication, and a vast number of other important medico-legal conditions, and we hope that the publication of this case may lead medical coroners and witnesses to accumulate a body of evidence which will enable medical jurists to cast a clear light on many such disputed topics.

ON PTOMAINES, OR CADAVERIC ALKALOIDS.

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AMONG the many decompositions of proteids none are of more interest than that series of changes that give rise to the production of ptomaines, or cadaveric alkaloids. Whether regarded from a forensic point of view, or as pathological phenomena, they are of surpassing interest. A recent trial for murder brought the name of "ptomaine" into prominence, and the counsel who made use of the facts already known only to specialists for their defence undoubtedly exhibited much cleverness. Considering the importance of the subject in pathological chemistry, and the little that is known about it, except to those of us who have worked more or less in this direction, I shall endeavour to give a short *résumé* of the facts already put before the scientific public.

Though the term "ptomaine" was first applied by Selmi to these bodies to indicate that they were of cadaveric origin, their distribution is no longer to be limited to the cadaver, but investigations are rendering it more and more probable that alkaloids of a poisonous nature occur in certain pathological conditions, and possibly also normally, as a product of change of living tissue. Selmi's first observations were made on corpses dead of arsenical poisoning, and it is of interest to refer to his methods. The liquid under observation was made alkaline with baryta water, and then extracted with ether; acicular crystals were produced, which precipitated the principal reagents that alkaloids answer to, with the exception of platinum chloride. Selmi's second attempt was made by extracting the liquid with aqueous alcohol, then making alkaline with baryta, shaking with ether, ridding of the ether by spontaneous evaporation and distillation, treating the turbid liquid thus left by water acidulated with acetic acid, filtering and evaporating to dryness; then taking up the residue with water, again rendering alka-

line with baryta and extracting with ether, and repeating the process till the liquid became colourless. The alkaloid thus extracted was so strongly poisonous as to destroy frogs with the greatest rapidity. Both of these extracts were free from arsenic. Subsequently Selmi extracted from the stomach of a hog which had been kept on arsenious acid a compound of an alkaloid (ptomaine) and arsenic, of an intensely poisonous nature, and resembling very much the vegetal alkaloid strychnia. As to their manner of production, Selmi supposed them to be products of putrefaction of organised nitrogenous material. They are variable in their nature according to the length of time after death, and though not present within a few hours after death in any appreciable quantity, they slowly develop with advancing decomposition. Indeed, it is only with extreme difficulty that in medico-legal cases they can be distinguished from true vegetal alkaloids, if the post-mortem examination be delayed, but probably, if made within twenty-four to forty-eight hours after death, any alkaloid found then will be a vegetal and not a cadaveric one. In general these ptomaines are oftenest amorphous in form and alkaline in reaction. They are for the most part volatile and easily alterable. They form crystalline salts with acids as a rule. The addition of acids to them usually changes them, with the production of pleasant adours, like orange-flower, musk, &c. Allowed to oxidise by contact with atmospheric air, they emit disagreeable cadaveric or urinous odours.

Some of these ptomaines are not poisonous, but most possess strongly toxic characters, and cause profound symptoms when injected under the skin—such as paralysis, more or less complete, of hinder extremities, dilatation of pupils, convulsions, muscular flaccidity, slowing or acceleration of the heart, loss of cutaneous sensibility and of muscular contractility, possessing many of the characteristic physiological actions of muscarin or atropin. They answer to nearly the same reactions as the vegetal alkaloids, some being precipitated by platinic chloride, gold chloride, mercuric chloride or tannic acid, &c.; and all have a strongly reducing action on potash ferridcyanide. They yield colour reactions with sulphuric acid (red), iodic acid and sulphuric acid (violet), nitric acid (yellow), &c. Their physiological properties are really their only characteristic properties, distinguishing them from other alkaloids. These ptomaines are met with under the following conditions:—

1. *As a constituent of normal tissues or juices.*—In this case they are products of tissue metamorphosis. (*a*) If from twenty to thirty cubic centimetres of fresh saliva be taken and evaporated over a water bath to dryness, and the residue extracted with boiling water and finally filtered, a toxic substance is obtained, which is strongly reducing, and converts ferridcyanide of potash, along with one or two drops of ferrichloride, into "Prussian blue." Injected into the thigh of a frog with a Pravaz syringe, it kills the animal in a longer or shorter time. (*b*) Snake poison differs from human saliva only in the intensity of its action. Gautier has extracted from the poison of trigonocephalus and naja, two distinct alkaloids, and a third which resembles either an alkaloid or an albuminous compound. (*c*) From normal urine Gautier asserts to have obtained a fixed oxidisable alkaloid, which forms a crystalline chloride, and also a crystalline double salt with platinic and gold chloride. This alkaloid is very poisonous, killing quickly with systolic standstill of the heart, stupor, and paralysis. Though Gautier's facts are unquestionable, there is a fallacy underlying his explanation of them that renders it valueless.

2. *In certain pathological conditions,* recent observations of Selmi's on what he calls pathological basis would seem to show:—(*a*) In the urines of patients suffering from progressive paralysis there are two volatile bases: the one like nicotin, the other like coniin. (*b*) In the urine voided during a case of interstitial pneumonia were two alkaloidal bases: one having the odour of stinking fish, the other of ammonia. (*c*) Two similar bases were found in the urine of patients with abdominal typhus. (*d*) In tetanus a base-like coniin was discovered in the urine. (*e*) In the urine of "miliary fever" an alkaloidal base having the odour of stinking fish has been observed.

3. *As acadaveric or artificial production.*—There can be no further doubt that these bodies are largely produced in the process of decomposition of nitrogenous or proteid tissues. Since Selmi first described their production his facts have been abundantly confirmed and extended. There are many varieties of them, and they vary much in their nature, according as the length of time after death is long or short. They are, however, of slow production naturally, a point referred to before, and to be borne in mind in conducting medico-legal inquiries. Stinking fish, bad meat, &c., all contain poisonous principles which can be extracted after the manner of ptomaines. The gastro-intestinal irritation and profound toxic symptoms produced by the ingestion of bad food are probably at the bottom processes of alkaloidal poisoning. On this subject I shall have more to say on another occasion. It is even possible that many so-called uræmic phenomena are produced by the retention within the body of these alkaloidal poisons; and, further, that the products of gastric digestion contain poisonous properties which, imperfectly excreted, may become toxic. There is a statement by Balduino Bocci that normal urine, especially after meal times, if injected into frogs destroys them rapidly. The observations of Gautier that an alkaloid of highly poisonous nature is to be obtained from normal human urine is of importance with reference to this point.

Brieger has obtained by the decomposition of neurin final products of trimethylamine, and a volatile body giving the iodoform reaction, which he suggests may be identical with those volatile substances in urine which give the iodoform reaction. By decomposition of neurin and albumen toxic bodies may be obtained much resembling muscarin. Both from freshly prepared peptone made by the action of gastric juice on pure fibrin, and from stinking peptone by boiling with caustic soda, evaporating, extracting, and purifying, toxic alkaloids can be obtained which kill frogs and rabbits in a few minutes. Putrefying casein, brain substance, liver, and muscle also yield these products. In the laboratory I have confirmed the observations of others as to the production of these substances, and I have also confirmed the statement of Gautier as to the production of a toxic principle from ordinary fresh saliva, which are very destructive to small animals. The extension of these observations to the investigation of snake poison and the salivary poisons of certain animals in the pathological state (rabies, &c.) becomes of extreme import. The investigations of Weir-Mitchell on the production of snake-poison are of extreme interest in connexion with this point, indicating as they do the discovery of three toxic principles in serpents' venom: the one resembling a peptone, the other a globulin, and the third serum albumen.[1]

Some of these ptomaines are poisonous, some non-poisonous; and it is common to find a poisonous and a non-poisonous moiety linked together. Some are volatile and crystalline, others non-volatile and non-crystalline, some precipitated by ether from acid or alkaline solutions, and some only precipitated by amyl, alcohol, or chloroform. With regard to tests, they answer to many of those usually employed for vegetal alkaloids, giving a dark colour with tannin, a thick yellow precipitate with potash cadmium iodide or potassomercuric iodide, with cadmium or bismuth iodide a red precipitate, with gold a mercuric chloride, a precipitate, and some of them precipitating platinic chloride. The vast majority are strongly reducing. This fact was put forward by Brouardel and Boutmy as a distinctive test for the presence of ptomaines. The base extracted from the body is converted into a sulphate, and to a little put into a watch glass which contains ferridcyanide of potash a few drops of ferric chloride are added. If a ptomaine be present there is a reduction of the ferridcyanide and the formation of Prussian blue. Brouardel and Boutmy asserted this reaction to be given only by ptomaines, morphia, and perhaps veratria, and to be in a manner characteristic. It has since been proved by Tauret, Gautier, and others that many vegetal alkaloids yield this test (aconite, digitaline, ergotinine, hyoscyamine, &c.), and also many artificial alkaloids (aniline, methylaniline, phenylamine, collidine, &c.). Even gelatine solutions and solutions of extract of meat give this Prussian blue reaction, so that it cannot for an instant be taken as characteristic of the ptomaines. No chemical test has as yet been devised that is at all crucial, and the general reactions, taken along with their physiological peculiarities alone, can be taken as evidence of the presence of a ptomaine.

The ptomaines so far described are:—1. Ptomaines, like atropin and hyoscyamine (Sonnenschein and Quelzer), crystalline, and which dilate the pupil and accelerate the heart. They are obtained from putrescent albuminous fluids. 2. An alkaloid from decomposing yeast (Schmiedeberg and Bergmann), which the authors call sepsin, and which resembles strychnia. 3. An alkaloid resembling morphia in its tests, but not in its physiological properties (Selmi). 4. One

[1] Vide THE LANCET, July 21st, 1883.

agreeing with delphinin, and which by warming with phosphoric acid gives a red colour. It does not agree physiologically. 5. One resembling strychnia in its behaviour towards sulphuric acid and potash bichromate, but not causing tetanus (Ciotto). 6. Alkaloids like muscarin (Gautier, Brieger, &c.). 7. Alkaloids like coniin, colourless, leaving a sharp taste like tobacco, and consisting of a poisonous and non-poisonous moiety, one part volatile the other non-volatile; one soluble and precipitated by warmth, like coniin, the other not. 8. Alkaloids resembling parvolin and hydrocollidin (Gautier and Stard), and one like collidin (Neucki).

As to the manner of production of these bodies chemically, I do not propose here to enter. It could only at present be speculative. I would sum up briefly as follows:—

1. There are developed in the body, post mortem, poisons of an alkaloidal character, and which can be obtained also by decomposition of albumen, peptone, casein, muscle, brain, &c. Moreover, they seem to be present in some normal secretions (saliva and urine).

2. These cadaveric alkaloids may be mistaken, post mortem, for vegetal poisons administered with evil intent, but if the body be examined within from twenty-four to forty-eight hours after death, any alkaloid there found would be strong presumptive evidence of poison, and not ptomaine. After a couple of days it may be a matter of doubt.

3. There is no satisfactory test surely indicating the presence of a ptomaine. Physiological characters must be taken in conjunction with chemical tests.

4. Probably the production of ptomaines within the living body may be the pathological cause of many obscure conditions, especially those following on poisoning by bad food, such as stale fish, &c.

Welbeck-street.

ON THE

CAUSES OF PUERPERAL ECLAMPSIA.

BY HENRY CORBY, M.A., M.D.,
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ON the 31st of March last I saw Mrs. B——. She was suffering from puerperal eclampsia. She had had a convulsion earlier in the morning, and two or three afterwards. Draughts containing hydrate of chloral and bromide of potassium were prescribed, as well as purgatives by the mouth and rectum. The lower extremities were œdematous, and the urine contained so much albumen, that on the application of heat and nitric acid it became almost a solid mass. The following day the albumen was diminished by about one-half, but on the second day hæmaturia occurred. On inquiring into the case, I learned that the patient was six months pregnant, that a week previous to the convulsions she experienced a dimness of sight, and that pressure in the abdomen caused pain. During an interval between the convulsions, on making an external examination, I noticed that the uterine tumour was not nearly as large as might be expected at six months, and, more remarkable still, I found that the fundus had not the usual semilunar outline, but appeared to be bound down in the centre as if a band had been passed from above downwards towards the cervix, and prevented the uterus from expanding upwards. On reflection it occurred to me that the condition of the uterus may have had a good deal to do with the production of the convulsions, and since then, having heard of another case of eclampsia in the neighbourhood, I have questioned the medical gentleman in charge, and learned from him that in his patient there was a previous history of oöphoritis, probably causing adhesions sufficient to more or less bind down the uterus, and the abdominal enlargement was not as great as might have been expected in a woman at her period of pregnancy—within a fortnight of her full time.

It may of course be considered rash to theorise as to the cause of a disease from the facts observed in one or two instances, but as I fancy my idea of the causation enables me to explain the various phenomena of this disease, I am induced to put my views before the profession. Dr. MacDonald states that by actual post-mortem examination he has demonstrated that there is anæmia of the cerebro-spinal centres in patients suffering from puerperal eclampsia. This may be, and probably is, one of the direct causes of the convulsions, but the question remains, What produces the anæmia?—in other words, What are the more remote causes of the disease? Braun states that urea and other excrementitious products retained in the blood in connexion with the presence of albumen in the urine are the factors in the production of the convulsions, and that the albuminuria is the result of Bright's disease. Frerichs considers that carbonate of ammonia produced by the decomposition of urea is the poisonous agent. But with regard to these theories it has been pointed out that puerperal convulsions occur when there has been no albumen in the urine previously, and that the albuminuria may be the result rather than the cause of the convulsions. It has been further urged that many pregnant women have albumen in the urine temporarily; and that if the presence of the albumen were such an all-powerful causative element, we should have convulsions occurring more frequently.

Now, the view I take of the matter is that the uterus, owing to adhesions or through some other defect, cannot expand upwards, and then it presses unduly in every other direction; amongst others backwards. We have thus pressure exerted on the large vessels behind the uterus, and the blood is delayed in its passage through the kidneys. Albuminuria results just as it does in ordinary cases of dilated heart. All this time the fœtus is growing, becomes unduly large for the uterus, and acts as a foreign and irritating body. Convulsions result from the irritation just as they do when there are worms in the intestine, and just as they do in a case of traumatic tetanus. We know, too, that many pregnant women are in a highly sensitive condition, and that nervous influences act and react much more readily than in the unimpregnated female. I believe, then, that for the production of puerperal eclampsia there are two causes operating, either separately or together—namely, retained excrementitious urinary products and the irritation of the proportionately large fœtus in the uterus. If this view be correct, we can explain several of the phenomena in connexion with the disease. For instance, the mere presence of albumen in the urine is not necessarily sufficient to cause convulsions in every woman, as the corresponding retention of excrementitious matter may not be sufficiently great, or might require the addition of the uterine irritation to produce the convulsions. Again, the delay in the occurrence of the convulsions, in some instances till after delivery, may be accounted for by the consideration that the excrementitious poisons had been accumulating, and the uterine irritation was gradually affecting the nervous centres till they became charged and the explosion took place. We can easily understand, too, why it is that, as a rule, the convulsions diminish in frequency, or cease altogether, after delivery; for then the backward pressure on the vessels and the uterine irritation are both removed. It is easy also to explain how it is that in so many instances labour occurs prematurely, and why it is that the fœtus is so frequently born dead. As we know that, generally speaking, the introduction of the hand into the uterus excites contractions, so the impinging of the fœtus against the imperfectly expanded uterus will develop strong expulsive action, and in addition the convulsive contractions to which the uterus, in common with other parts of the body, is subjected, must have a tendency to bring on labour. With reference to the death of the fœtus, it is apparent from what has been said above that many things contribute to the production of that event—namely, the poisoned condition of the blood; the almost direct pressure of the uterus, owing to the proportionately small quantity of the protecting amniotic fluid; the tonic spasms followed so closely by the clonic spasms, and one or both sometimes so prolonged that the interval of quiescence, such as occurs between the ordinary labour pains, does not supervene till the life of the child is sacrificed.

If these views of the disease be correct, the previous treatment of a patient suffering from puerperal eclampsia would require a good deal of consideration and attention.

Cork.

THE LATE DR. LOFTIE STONEY, OF DUBLIN.—At a largely attended meeting of students connected with the Carmichael College of Medicine, the institution where Dr. Stoney held the appointment of lecturer on anatomy, it was decided to erect a suitable memorial to the memory of the deceased gentleman.

CASE OF

HÆMORRHAGE FROM THE MOUTH, NOSE, STOMACH, ETC.; CANCEROUS CACHEXIA.

BY JAS. W. SMITH, L.R.C.P. LOND., M.R.C.S.,
SURGEON TO THE DONCASTER INFIRMARY.

A CASE of considerable interest, and presenting many features in common with one reported in THE LANCET of May 26th last by Dr. O'Neill, occurred recently in my practice.

L. S——, aged forty-four, married, with one child born many years previously, came under my care in March. She complained of complete loss of appetite, had been losing flesh for some time past, and was very anæmic. Pulse 100; temperature normal. She had no pain, and there was an entire absence of any symptoms pointing to the cause of her troubles. She was much depressed. A few months before she had lost an only sister from consumption. This sister had been ill for three or four years, and had been nursed unremittingly throughout her long illness by my patient. She imagined that she had contracted her sister's disease. An examination of the apices of the lungs showed them to be healthy, a condition of things corroborated by the normal temperature, absence of cough, &c. Under the circumstances, I came to the conclusion that her illness was the outcome of the protracted nursing with its attendant anxieties, and that a little change with a tonic plan of treatment would soon put her all right again. These measures, however, brought no improvement. The anæmia and wasting increased, and the loss of appetite continued. I now, in the apparent absence of any definite symptoms of other disease, thought the case might be one of idiopathic anæmia. Towards the end of April she began to spit blood. It was florid, but not frothy, and did not appear to come from the lungs. Moreover, her nurse informed me that she had bled from the nose. I assumed therefore that the blood she spat probably passed into the pharynx and mouth from the nose. There was no very great quantity. Under the use of astringent remedies it ceased, but returned again three or four days later, and from this time (May 4th) until her death (May 22nd) she never ceased to spit blood, the quantity of which gradually and persistently increased. At first the blood appeared to come principally from the mouth, an examination of which showed the gums to be soft and spongy. About this time (the commencement of the blood-spitting) she complained of sickness whenever she assumed the erect posture. She did not vomit, and there was no pain in the epigastric region. Soon, however, vomiting set in, especially in the morning, and the vomit frequently contained blood in the form characteristic of hæmatemesis—"coffee grounds." On May 14th I noticed that some of the blood spat was frothy, and that it was apparently coughed up. On examining the lungs for its source I discovered, for the first time, a hard cancerous nodule, the size of a plover's egg, in the right breast. The skin was adherent, and the nipple had sloughed away. The axillary glands were enlarged. She had carefully concealed the existence of this tumour from every one belonging to her, and it was only by accident that I discovered it. It had existed for some months, and was evidently the cause of the cachexia and blood deterioration from which she suffered. On May 16th she complained of a tooth, which was loose, troubling her, and preventing her masticating. I extracted it at her urgent request. This was followed by profuse bleeding, which was only arrested by plugging the cavity. In consequence of great sleeplessness and restlessness, and the unsatisfactory action of chloral, I was induced to try the effect of a small injection of morphia. She slept well after it, but the next morning my attention was called to a patch of ecchymosis fully two inches in diameter at the seat of puncture. I now examined the surface generally, and found one or two patches of ecchymosis of considerable size on each leg, but not anywhere else. On May 21st she had an alarming hæmorrhage from the nose. This was, with great difficulty, arrested by plugging the posterior nares. It was followed by very great prostration. On the following morning I was shown her urine, which contained a quantity of blood. The blood was equally diffused through the urine, and must have come from the kidneys. Some blood had also been vomited. During the day she gradually sank into a state of coma and died.

No examination of the body was allowed, but from the existence of cancer in the breast I entertain no doubt that all her symptoms, unusual so far as the excessive bleeding is concerned, ought to be attributed to this cause. An examination of the body would probably have revealed the presence of cancer in various internal organs. The case could not be regarded as one of hæmophilia. There was no previous history of hæmorrhage. The sister, however, who died from consumption suffered from repeated attacks of hæmoptysis during the course of her illness. The other members of the family were healthy. The patient had always when well enjoyed a vegetable diet, and there were no grounds for assuming the coexistence of a scorbutic diathesis. No microscopical examination of the blood was made. It became much paler towards the end of the case, and throughout appeared to be deficient in fibrin, as coagulation was very imperfect and clots were rarely seen. It is remarkable that she never complained of pain in the breast, but it is possible that she may have suppressed this symptom, as she had certainly a great and unreasoning dread of the tumour being discovered, and had been at very great pains to conceal its existence even from me, her usual medical attendant. The urine was examined early in the case, and was free from albumen. The usual styptics, ergot, gallic acid, acetate of lead, hamamelis, &c., were administered in the treatment of the case, but without success.

Doncaster.

A NOTE ON

THE TREATMENT OF CARDIAC DROPSY.

BY JAMES BRAITHWAITE, M.D.

ALTHOUGH the diuretic action of digitalis in cardiac disease with dropsy is perfectly well known, it is very rarely indeed prescribed in this part of the country in that form in which its diuretic action is most marked. My attention was drawn to this as long ago as fifteen years since by the following case.

A man with extreme anasarca from cardiac disease, but without as yet the appearance of the skin or the legs indicative of threatened dermatitis with sloughing, passed several days and nights sitting on the edge of the bed, suffering from extreme dyspnœa. Southey's capillary tubes were not then invented, and I always punctured the legs with a needle in cardiac dropsy with great reluctance. I ordered the patient to drink freely of freshly prepared but weak infusion of digitalis. This caused a very copious secretion of urine, which continued until the dropsy had entirely disappeared, and the man actually resumed his occupation of travelling for orders in some business, and I saw him about in the streets occasionally for several years.

From that time I have invariably used this treatment, and some of the cases have been very remarkable. I generally order half a small or medium-sized leaf to be infused, with the addition of a little black tea, in about twelve ounces of boiling water, and taken daily. By this means we get the full diuretic effect of the drug, in addition to its action on the muscle of the heart. The action of the ordinary tincture and of the powder given in pill is, as a diuretic, hardly noticeable, and the usual combination with squills, solution of acetate of ammonia, and spirit of nitric ether is much inferior to the infusion. A few months ago I saw, with a gentleman in Leeds, a case of cardiac dropsy very similar to the one related, and his first words when we were alone were, "Well, I suppose you will say that it is a case in which no good can be done?" and he was apparently surprised at my reply, "On the contrary, I think it a very promising case." I heard some weeks afterwards that that patient was getting better, or was very much relieved. The fact is, there are many cases of cardiac disease in which a complete breakdown would not have occurred but for some external circumstances—I mean external to the heart,—as an attack of bronchitis or impairment of the health by want of rest, especially if combined with food that is poor in quality; and when dropsy has once occurred, the circulation becomes more and more embarrassed. Let, however, the dropsy be removed, and another chance is given to the heart to recover itself. In this it is aided by the action of the drug on its muscular fibre and by the absolute rest of the patient. Once

a year, during some country journey in autumn, I collect a quantity of leaves and dry them for use. The matter is by no means new; but I have taken the opportunity of asking various medical men about their use of digitalis, and have only met with one who uses it in infusion.

Leeds.

ON BLOODLETTING.

BY W. M. BURMAN, L.R.C.P. LOND., M.R.C.S.

I PERUSED with much interest Dr. Broadbent's paper "On Venesection" in THE LANCET of Jan. 6th, 1883, and as I have had during the last few years several cases confirming his experience, I think it may subserve a useful purpose to put them on record.

CASE 1.—A girl, aged seven years, had a very mild attack of scarlatina two or three weeks before I saw her, but she had had no medical attendance for it. I found her in strong convulsions, which came on very frequently. A variety of treatment was tried: mustard to the epigastrium, mustard pediluvia, cold applications to the head, four grains of calomel being administered, &c. In spite of all treatment the convulsions continued during the day, becoming rather worse in their character. In the evening I bled her from the arm to eight ounces. She became sensible almost directly afterwards, never had another fit, and recovered very rapidly.

CASE 2.—This case was very similar to the last. A lad, twelve years old, was attacked only a few days after Case 1. Nothing made any impression on the fits until I bled him to sixteen ounces, which caused an immediate cessation of them, and he was quite well in a few days, the albumen soon vanishing from the urine.

CASE 3.—This patient, a man aged thirty-three years, had albuminuria with slight anasarca consequent upon a mild attack of scarlatina. After exposure to cold convulsions came on. A variety of remedies was tried, including a hot vapour bath, but the fits continued to be quite as frequent, and the insensibility more profound. Next day I bled him to twenty ounces, and whilst the blood was flowing he partially regained consciousness, opening his eyes and asking questions. The albumen disappeared from the urine in a week, and he soon was quite well.

CASE 4.—This patient, a woman aged twenty-five years, short, stout, with pale, flabby, puffy face, and eight months pregnant, first suffered from puerperal convulsions. The fits were very frequent, she being only semi-conscious between them. I gave her with difficulty a drop of croton oil. Some hours after, as the fits were as frequent as ever, I bled her to twenty ounces. Great improvement ensued even whilst the bleeding went on, and she soon regained consciousness, never had another fit, went to the end of her pregnancy, and had an easy and quick labour.

CASE 5.—In this instance the patient was healthy, about twenty-two years old, and was attended by a midwife during her first labour. The convulsions came on at noon, and I was sent for. The os was about an inch and a half wide, the pains were frequent, and convulsions attended each paroxysm. I gave her chloroform, and whilst she was under its influence scarcely any fits came on, but directly it was suspended they became as bad as ever. She was delivered with long forceps in the evening of a healthy living child, and I left her in an hour and a half, doing very well. Soon after midnight convulsions came on again and continued every fifteen minutes, she being quite comatose between them. About 10 A.M. I bled her to twenty ounces, but she had a fit during the bleeding; as the pulse seemed very firm still and there was no pallor of face, and she was a full-blooded woman, I allowed ten ounces more to flow, and during this she regained consciousness. No more fits came on, and she recovered very well.

The most striking thing about these cases is the immediate relief of symptoms which followed the bleeding, most, if not all, showing marked improvement before the bleeding ended. This seems to imply that the primary effect of it is mechanical—perhaps by unloading the cerebral vessels and giving greater freedom to the circulation.

Wath, near Rotherham.

A MOVEMENT is on foot for the purpose of raising a memorial to the late Mr. Haffenden.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

"Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

OPERATION FOR NON-UNION OF FRACTURED PATELLA BY THE LISTERIAN METHOD; DEATH FROM SEPTICÆMIA.

(Under the care of Mr. JOHN WOOD.)

THE following is, we believe, the first published fatal case of the Listerian operation of opening the knee-joint in order to unite the fragments of a fractured patella by means of a metallic suture. From the table presented by Mr. Turner at the Clinical Society on the 9th inst., and published in another column, it appears that Sir William Mac Cormac has also had a fatal case. The operation is now known to have been performed fifty times with two deaths, or a mortality of four per cent. Thirteen of the fifty cases had suppuration or anchylosis, or both; in one case the operation had to be abandoned because the fragments could not be brought together, and in another the fragments could not be brought nearer than one inch, and in another the patella broke during passive motion. Whatever may be the final verdict of surgeons on this procedure, it is but just to state, from personal observation, that as regards the case here recorded the operation was performed with Mr. Wood's acknowledged judgment and skill, and that strict Listerian precautions were observed to keep the wound aseptic. This was apparently accomplished; for, though the wound did suppurate, "no trace of putridity could at any time be detected" about the dressings or the wound. But, in spite of the fact that the dressings were antiseptic throughout, this case, like Sir William Mac Cormac's, died of septicæmia. Finally, it should, in the interests of surgery and historical truth, be stated that neither Mr. Wood's exact anatomical knowledge nor his dexterity in plastic operations could procure apposition of the fragments; so that had the patient survived the operation, the fragments of the patella would, a second time, have had only a fibrous union.

George G——, aged thirty-four, omnibus conductor, was admitted under Mr. Wood on Jan. 31st, 1883. Five years ago the patient fractured his right patella. He was treated elsewhere by a back splint. The result was not satisfactory, for the leg was weak from the very first. Two years later, while running after his omnibus, he fell and fractured the other patella; this was put up in a starched bandage for six weeks, and then he was allowed to walk about without further treatment. It appears that in both cases the space between the fragments increased gradually as he began to flex the knee. He was able to follow his occupation until he was admitted, but with great and increasing difficulty. He was anxious to have his condition improved if possible. When examined it was found that both patellæ were fractured transversely; there was wide separation between the fragments, on the left side the space being nearly five inches. It was decided to obtain osseous union if possible on the left side by opening the joint under the spray, and wiring together the fragments.

Operation.—Feb. 3rd: The fragments were exposed by a vertical incision, and an endeavour was made to approximate them by traction and raising the extended leg, but it was only after the aponeurotic structures on either side of and beneath the upper fragment and the quadriceps tendon had been divided freely that relative approximation could be secured. The fractured edges, which were covered with fibrous tissue, were removed with a saw; two holes were next drilled in either fragment, and through these stout silver wires were passed and their ends twisted together. Although there was considerable strain on the wires, still some separation between the fragments remained. The wound was closed with carbolised silk sutures, a horsehair drain inserted, and an antiseptic dressing and a back-splint applied. The evening temperature was normal. The patient complained of severe pain during the night.—4th: Patient's

condition satisfactory.—5th: The evening temperature rose to 101·8°.—6th: Temperature: morning, 102·8°; evening, 102·6°. Pulse 110. Wound dressed; some tension existed about it.—7th: The temperature rose to 104·4°. No rigor. Patient restless and delirious at times. Chloral and bromide draught ordered, and three grains of quinine every two hours.—8th: The temperature was 104°. Nausea and sickness supervened. Respiration 48; pulse 144, very feeble.—11th: Temperature 104·4°. The patient was unconscious at times. Pupils contracted; tongue dry and brown. Severe diarrhœa set in, with offensive motions. Half an ounce of brandy was given every two hours. No albumen in the urine.—12th: Temperature: morning, 103·3°; evening, 104·8°; pulse 114, feeble. Diarrhœa continued; motions passed unconsciously, light-coloured; respiration rapid and shallow. The upper part of the right thigh became œdematous; sordes on teeth and lips.—14th: Temperature 102·6°. Swelling, redness, and œdema over the left elbow-joint; low muttering delirium; diarrhœa slightly diminished.—15th: Well-marked œdema of abdominal walls. The swollen arm was punctured; a quantity of serum escaped, but no pus. There was a sloughy look about the edges of the wound. Sweet odour of breath first noticed. Temperature 101·8°; pulse 140, very weak. The respiration, which had varied between 52 and 60 during the past three days, increased to 62.—16th: Temperature 100°. Subsultus tendinum.—17th: Temperature, morning, 99·4°. Thigh punctured; no pus. Died at 8.5.

The friends objected to a post-mortem examination. There were no well-marked remissions of temperature. Rigors, jaundice, and perspiration were absent from first to last. Diarrhœa set in on the fifth day, and persisted, in spite of treatment, with little abatement, until death. The swellings were apparently not arthritic. The wires were untwisted to relieve the tension. The wound suppurated, but there was no tension in it. The antiseptic dressings were continued throughout, and no trace of putridity could at any time be detected about them or the wound.

LONDON HOSPITAL.

A CASE OF HÆMATINURIA WITH CHYLOUS URINE.

(Under the care of Dr. RALFE.)

THIS case is of interest from the fact that a distinctly chylous condition of the urine was noticed on one occasion, when the urine was free from the colouring matter of the blood, an association which has not been noted with regard to previously recorded cases of the disease.

James P——, aged forty-seven, entered as an out-patient at the London Hospital on March 12th. He states that during the cold weather in January, 1880, he was seized with chills and shivers, a feeling of malaise, and a sensation of weight and oppression at the pit of the stomach, with dragging pains in the right side; he also became very sallow. He then noticed that the urine passed was frequently of a dark port-wine colour, though when free from the chills it was of its usual appearance. He was admitted an in-patient under the care of Dr. Hughlings Jackson. The attack lasted six weeks, and with the advent of warmer weather he regained his usual health. A similar attack came on in the early spring of 1881, when he was an out-patient under the care of Dr. Sansom, and again in the winter of 1882, when, being unable to get a letter for the London Hospital, he applied at St. Bartholomew's, where he was treated as an out-patient. The attack of the present year commenced about nine days before he applied at the hospital with an out-patient's letter, and was attended with the usual symptoms—namely, frequent chills, dyspeptic symptoms, and slight jaundice. The patient has the appearance of being a sturdy, well-nourished man, and is employed as an overlooker in some extensive brickworks in the northern suburbs. Previous to this, seventeen years ago, he had worked a barge on the Portsmouth and Basingstoke canal, from Wiaborough-green to Arundel. He says that several of his mates were attacked with ague when working in the Arundel district, though he himself never suffered from it. He also stated that in passing through the marsh lands they were frequently bitten by large gnats, which they used to call mosquitoes. With exception of an attack of inflammation of the bowels some years ago, and the recurrence of the hæmaturia for short periods during the last four years, his health had been excellent. He is a temperate man, his family history is excellent, and there is no recognisable organic disease. At present he looks tired and languid, the skin and conjunctivæ decidedly yellow, tongue coated, and pulse sluggish. A sample of urine, brought with him, presented the following characters: Specific gravity 1018, reaction acid, colour a deep port-wine hue, clear; on standing it deposited a little brownish-red sediment. This on examination was found to consist of a fine granular débris, bladder epithelium, and crystals of calcium oxalate; no blood-corpuscles or casts visible; albumen about one-sixth. Ophthalmoscopic examination showed the retinæ to be free from any trace of hæmorrhage. He states that the coloured urine is discharged about twice a day, generally in the forenoon and in the evening; at other times it is quite clear and bright. He was ordered a mixture of Chian turpentine with three drops of arsenical solution three times daily, and a four-grain dose of quinine every forenoon at twelve.

March 19th.—Brought two samples of urine, one free from blood but of milky appearance, which on standing yielded a bulky fibrinous clot which floated on the surface of the urine, the other very similar to the one examined at the previous visit. Questioned with regard to the milky condition of the urine, he said he never remembered noticing anything of the kind before, but then he had not noticed that there was anything unusual with this sample till his attention had been called to it. He is very much better; for three days during the past week he had been quite free from any appearance of blood. (The weather had been much warmer.) Treatment continued. Dr. Ralfe did not see the case again till April 5th; but during the severe weather from the 22nd to the 27th of March the patient became much worse, and the discharge of coloured urine became almost constant. With the milder weather that set in about March 30th the urine cleared up, and on April 5th had been normal for four days. He was kept under observation a fortnight, but there was no return either of the hæmatinuria or chylous condition of the urine.

Remarks.—Dr. Ralfe observed that some writers prefer to call this disease hæmoglobinuria because the spectrum of this kind of urine always exhibited the characteristic bands of oxyhæmoglobulin. But in addition to these there was invariably present a third band—viz., that of methæmoglobin. Now, recent investigations show that methæmoglobin contains less oxygen and more iron than oxyhæmoglobin, and this makes it probable that the oxyhæmoglobin is undergoing a downward change into hæmatin. Again, the researches of Jaffé, Maly, and MacMunn on the origin of urinary pigments point clearly to the conclusion that the effete hæmoglobin of the blood is converted in the liver into hæmatin and then into bilirubin, and this is still further oxidised into urobilin, the chief pigment of the urine. Now, if this conversion should not always take place, owing to some functional derangement of the liver, the effete hæmoglobin may escape conversion in the liver and be eliminated by the kidney as hæmoglobin undergoing the downward change into hæmatin before its oxidation to urobilin. That this is a possible explanation is strengthened by the fact that some observers have met with actual crystals of hæmatin in the deposit of this kind of urine. For these reasons Dr. Ralfe thinks the term hæmatinuria should be decidedly retained. With regard to the chylous condition of the urine observed on one occasion in this case, it was difficult to decide whether it was an exceptional discharge or of an intermittent character. As the patient had not noticed that the sample, which had a milky appearance and yielded a fibrinous clot, was different from his normal urine, he may, unobserved by him, have passed it on previous occasions, whilst the case was under observation too short a time to speak positively as to its non-appearance. The association of chylous urine with the intermittent hæmaturia of the West Indies makes it not improbable that there may have been a similar relationship in this instance. On the other hand, there are cases on record in which a discharge of chylous urine has been observed on one or two occasions only, and never afterwards to have recurred.

DISTRICT HOSPITAL, WEST BROMWICH.

COMPOUND FRACTURE OF TIBIA AND FIBULA; PHLEBITIS; SEPTICÆMIA; DEATH.

(Under the care of Mr. H. LANGLEY BROWNE.)

FOR the report of the following case we are indebted to Mr. Edwin Kite.

G. W——, aged forty-nine, but looking much older, was admitted on August 24th, in an extremely collapsed state,

with a compound fracture of the right leg. On examination, the tibia and fibula were found to be fractured at a level of about three inches below the tubercle of the tibia, with two lacerated wounds, one on the anterior aspect of the limb, evidently involving the anterior tibial artery, accompanied by a considerable amount of venous oozing, the other on the fibular side, through which the bone was visible: the limb below was cold and quite pulseless, with marked emphysema round the knee-joint. Amputation through the thigh above the condyles of the femur was performed at once by Mr. Browne. Examination showed an incomplete rupture of the popliteal vein, and the popliteal space was filled with dark-coloured clots.

Previous history.—The patient had spent several years in the tropics; five years before he was confined to his bed for fourteen weeks with an empyema on the right side, which burst internally, and ever since he has been troubled with a cough, accompanied by expectoration. No albumen in urine. The stump healed firmly without any complication in four weeks; it was dressed with strict antiseptic precautions for three weeks. The temperature was always above normal, seldom below 100°, never above 102°. The cough was troublesome; the breath-sounds of right chest were feeble, with sonorous rhonchi, and not equably expansive; breathing of left chest prolonged; expectoration bronchial. On the evening of September 20th, twenty-eight days after the accident, the temperature shot up to 104°. Stump healthy; cicatrix firm; no increased local temperature, redness, or swelling. Respiration 32; pulse 128. No râles were perceptible in the left chest; the right chest gave the usual physical symptoms. The urine was pale and limpid; there was no albumen. The bowels were regular. There was no tympany or abdominal pain. Ten grains of sulphate of quinine and fifteen grains of salicylate of soda were given every three hours. Temperature at 11.30 P.M. 102·2°; next morning 101°. On Sept. 23rd the patient was purged, with griping pains; the stools were pea-soupy, and there was slight tympany. Tincture of opium and chalk stopped the purging and pain; there was slight tympany remaining. Temperature 101°. —25th: In the morning the stump presented the usual appearance, and was loosely bandaged. At 5.30 P.M. the thigh and stump were reported very much swollen. On examination the right thigh appeared to be much enlarged, and of a uniformly white colour, and the superficial integuments were stretched and glazed, with slight pitting on the outer side, but well marked on the inner aspect. No local pain was complained of, and there was very little tenderness on pressure over the course of the femoral vessels. The cicatrix was healthy. The patient was quite unconscious of his condition. The tympany noticed two days previously had not increased. Iodine was applied over the course of the femoral vessels and Poupart's ligament, and the whole thigh was enveloped in a jacket poultice. Temperature: morning, 100·6°; evening, 102·8°. There was no vomiting or purging. The following was prescribed every three hours: Oil of turpentine, ten minims; tincture of opium, ten minims; spirits of chloroform, ten minims; added to an ounce of water.—26th: The stump and thigh were about the same, The tympany had increased. The bowels were slightly opened during the preceding night and once during the day. There was no vomiting. The mixture was repeated. Temperature: morning, 103°; evening, 104·6°.—27th: Tympany increased; pain diffused over the abdomen, especially referred to the right iliac region; bowels moved once; stools scybalous. Ten grains of sulphate of quinine given at 1.30 A.M. brought the temperature down to 99·6° at 10 A.M. Evening temperature 101°. Condition easier. —28th: General condition unaltered. Temperature: morning, 100·6°; evening, 101·8°. —29th: Patient sinking. Tympany not increased. Slight pain was complained of in the right iliac region. Morning temperature 101°. The patient was conscious, but much weaker; there was no vomiting. He died on Oct. 30th, at 1.40 A.M.

Necropsy.—The brain was normal, the vessels were engorged. Thorax: The right lung was adherent to the wall of the chest; sternum and diaphragm were atrophied and broken down in the centre into tissue, quite unfit for respiratory purposes; there were traces externally of old-standing pneumonia and pleurisy; it sank in water; the cut surface was friable, with semi-purulent exudation. The left lung was congested, it floated in water; there were patches of recent catarrhal pneumonia. The heart was somewhat flabby, but otherwise healthy. The liver was large, the kidneys were large, capsule separable, hæmorrhagic spots on section. The intestines were healthy; there were traces of localised peritonitis round the cæcum. Thigh: Wound quite healed, cicatrix stretched, but firm and healthy, no sign of any inflammatory changes; incision showed watery appearance of all tissues. Femoral artery traced to termination in stump, presented no morbid appearances; end cone-shaped, semi-solid, and filled with lymph and organised clot one inch from terminus. Vein, thickened and bulging, grooved by artery; on cutting through iliac vein in pelvis broken-down clot and pus exuded. On longitudinal section, the whole vein from commencement in stump to ending in iliac was thickened, and internal coat was heaped up at intervals, and filled with broken clot and pus.

The conclusion arrived at was that the patient died from phlebitis following injury, causing localised peritonitis and septic pneumonia, and the condition being predisposed to by old-standing disease of the right lung.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Aneurism in Young Persons.

THE ordinary meeting of the above Society was held on Tuesday last, Mr. J. Marshall, F.R.S., President, in the chair. It was announced that the new volume of Transactions was published. Mr. Marshall stated that the Council had decided to reduce the price of the catalogue of the library to 7*s.* 6*d.* for all Fellows elected since 1879. There was but a small attendance of Fellows. Mr. Parker illustrated his paper by specimens of the heart and implicated vessels from his own case and some other similar specimens from London museums.

Mr. R. W. PARKER related a case of Spontaneous Inguinal Aneurism in a boy aged twelve years and eight months, for which the external iliac artery was tied; with notes of the other recorded cases of aneurism in young persons. The patient, Frederick L——, was admitted into the East London Hospital for Children with an aneurism in the left inguinal region about the size of a pullet's egg. The boy first experienced a pain, while in bed, three weeks before he came under the author's observation, after which the aneurism gradually developed. He continued to attend school until within two weeks of his admission into hospital. There was extensive aortic disease. After ten days' rest in bed the external iliac artery was tied under strict Listerian precautions: a carbolised silk ligature was used. The wound healed within about a week, and the aneurism was cured. Thirty-four days after the operation severe epistaxis occurred and recurred, and the boy died of anæmia and exhaustion rather suddenly. At the autopsy vegetations were found on the aortic valves, and the aortic orifice was narrowed. The heart was hypertrophied. The author then gave a summary of all the hitherto recorded cases of spontaneous external aneurism in persons under twenty years of age. The table contained fifteen cases, including his own. It was shown that in no less than eight of the fifteen cases there was disease of the valves, in two cases only was the heart found healthy, while in the remaining five cases its condition was not stated. The association of vegetations on the valves and aneurism has also been noticed in internal aneurisms. The views of various authors on the relation of embolism and aneurism were quoted; the author, while agreeing that this must be more than mere coincidence, felt that the exact mode in which the aneurism was brought about had not yet been satisfactorily demonstrated, and invited discussion thereon. The object of the criticisms was to show that much remained to be made out even if the embolic doctrine were accepted.—Mr. MARSHALL said cases of aneurisms in young persons were rare, and Mr. Parker's paper was very valuable, and required careful consideration. How embolism produced aneurism had yet to be shown. He asked whether the anchylosis of the hip were due to rheumatism, and whether there was any history of congenital syphilis in the case.—Mr. HOLMES agreed with Mr. Parker that we did not under-

stand the mechanical connexion between embolism and aneurism, but such a connexion must be admitted in a case like that related by Mr. Parker. He thought that Mr. Parker had not absolutely proved the presence of an embolic clot in his case; but Mr. Holmes referred to a specimen on the table borrowed from St. George's Hospital, removed from a boy suffering from extensive heart disease and an aneurism of the ulnar artery, with embolic clots in the spleen and other organs. There could be no doubt that in early youth many aneurisms were associated with vegetations on the valves of the heart. The inference was that the aneurism was due to plugging of the artery, or to the general disturbance of the circulation. Mr. Holmes strongly inclined to the former view, and he thought that possibly it was explained by a dilatation of the artery above the embolic clot. Usually the embolon plugged the artery only partially for a time, and gradually increased so as to plug the vessel completely. Aneurism was more liable to form where the plugging is sudden and complete. Mr. Tufnell had published a case of popliteal aneurism which occurred almost immediately after the plugging of the vessel by an embolon. Mr. Parker's case was very interesting on account of the extra strain thrown on the hip by the anchylosis of the opposite hip. Aneurism owned, he thought, a mechanical cause in almost all cases. While no doubt the antiseptic ligature was a great success, there was one disadvantage in it—viz., the less obliteration of the artery, sometimes for a space almost linear. In a case of his own there was merely a diaphragm across the vessel. Much credit was due to Mr. Parker for bringing together all known cases of aneurisms in young subjects.—Mr. BARWELL did not see any proof that an embolism occurred at the spot where Mr. Parker found an aneurism, nor in the case of ulnar embolism referred to by Mr. Holmes. He did not deny it, but it was necessary to prove it. Unless the artery be diseased at the spot, he doubted whether the lodging of an embolon would produce an aneurism. In seven out of Mr. Parker's cases of juvenile aneurism there was no disease of the heart. The mere occlusion of an artery, as by tourniquets, did not produce aneurism. These vegetations might remain in contact with other soft tissues without producing the softening suggested by Dr. Goodhart in the arteries. He thought, therefore, that some other cause for the association of aneurism and heart disease must be found. In Mr. Tufnell's case, before referred to, the dilatation of the artery quickly subsided before death. In the brain and the softer viscera, embolism might produce aneurism, quickly running on to rupture. He thought the great bending of the boy's artery, and the forcible action of the heart, and the weak vessels as evidenced by the epistaxis, explained the causation of Mr. Parker's case. The formation of an aneurism above a ligature might be due to the division of the inner and middle coats of the vessel.—Dr. GOODHART said that aneurisms were not found from infarctions in solid viscera; pulmonary aneurism only occurred in the walls of cavities. He thought, undoubtedly, that the aneurisms discussed to-night were due to embolism; the aneurisms are seated at the forks of the vessels, where embolisms would be expected, and they were out of proportion frequently in the brain, possibly from the small size of the vessels there. He could not accept Mr. Holmes' view of the artery dilating above the embolus. Such dilatation above a ligature only occurred where the artery was inflamed, and this supported his (Dr. Goodhart's) hypothesis of the softening of the coat of the artery. These aneurisms occurred only in cases of fungating endocarditis—ulcers were not found in all cases,—so that evidently the aneurism was not simply due to the mechanical course of the embolus; the clot or vegetation was septic. In these cases death most certainly ensues quickly; it was therefore a question whether an operation was advisable.—Mr. BARKER remarked that this was one of the few cases on record in which there had been an opportunity of examining the artery some time after the application of an antiseptic silk ligature. In this case the result was most satisfactory. While there was doubt about the catgut ligature, there was none about silk, if only it be shown to be as innocuous as the catgut when left in the tissues. Ovariotomists had shown that silk was quite innocuous, and surgeons had used silk in this matter very freely. About three months ago he ligatured the femoral artery with silk for femoral aneurism, and the silk remained in the tissue without causing any irritation.—Mr. BERKELEY HILL referred to the microscopical appearances of the tissues round the silk ligature in Mr. Heath's case, recorded at the Society last session, which showed very active cell infiltration round the ligature.—Mr. PARKER replied that there was no history of rheumatism or syphilis. The hip-joint was found full of caseated pus. He had wished to draw attention to the fact that, given an embolus in an artery, there was something more to be taken into account before an aneurism occurred. He suggested that possibly in cases of severe valvular disease of the heart the intima of the arteries might undergo some change. He asked if Dr. Goodhart could explain why the septic embolus adhered to some given part of the artery wall? If so, all the other steps in the process he described could be understood when the aneurisms were saccular. He was inclined to think that silk was more reliable than catgut.—The PRESIDENT thought that perhaps different causes operated in different cases; there might in some be disease of arteries, in others softening of the vessel from the presence of a septic embolus.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Wound of Plantar Arch; Secondary Hæmorrhage.—Ununited Fracture of Patella treated by Antiseptic Metallic Suture.

THE ordinary meeting of the above Society was held on Friday, November 9th, Sir Andrew Clark, Bart., President, in the chair. There was a large attendance, and a brisk discussion upon the treatment of fracture of the patella.

A case of Multiple Subcutaneous Nodules in an adult male was shown by Dr. J. KINGSTON FOWLER.

Mr. G. R. TURNER related a case of Wound of the Plantar Arch, with secondary hæmorrhage on the thirteenth and sixteenth days following the injury. E. S——, aged ten, schoolboy, was admitted into the Seamen's Hospital, Greenwich, under the care of Mr. Turner, on April 16th, with a punctured wound of the sole of the left foot, received from a glass cut two days previously. The patient was a healthy boy and had no hæmorrhagic diathesis. Bleeding from the wound was arrested by pressure for ten days. On the thirteenth day after the accident hæmorrhage recurred, ether was administered, the wound enlarged and explored, but no wounded vessel could be found; the parts around by this time were sodden and rotten, so it was decided to ligature the posterior tibial artery, and, if necessary, the dorsalis pedis. On ligaturing the first vessel behind the inner malleolus the hæmorrhage ceased only momentarily, so the dorsalis pedis was also secured; chromic acid catgut was used as a ligature in both cases. Hæmorrhage returned on the sixteenth day, three days after the proceeding, and was finally arrested by sponge pressure after the application of the actual cautery. Mr. Turner thought the case of interest as bearing on the question of treatment of these injuries. Should the vessel be secured at once, without taking heed of the injury done to the tendons of the foot and other structures of the sole, or was it right to first try the effect of pressure? Had the actual cautery failed eventually to arrest the bleeding, ligature of the femoral would perhaps have been indicated.—Mr. HENRY LEE thought that hitherto there had been no rule for treatment of wounds of the palmar or plantar arches. He referred to a case where first the radial artery was tied, then the ulnar, then the brachial, and afterwards the limb was amputated. This was an opprobrium on surgery. The line of practice indicated by Mr. Turner of using the actual cautery was the correct one; an iron of the proper temperature applied to the end of the artery would stop the bleeding from any vessel. The temperature of the iron should always be below boiling-point, which could be estimated by applying it to a damp sponge. At this temperature the iron adhered to the soft parts, and should be carefully separated by the handle of a scalpel. He had amputated the leg three times, using only the cautery as a styptic. He had never had a case of secondary hæmorrhage after the use of a properly heated iron.—Mr. C. HEATH asked for a few more details concerning the early treatment of Mr. Turner's case, especially as to the dressings and the relation of the hæmorrhage to the removal of the dress-

ing.—Mr. TURNER said the boy was admitted two days after the injury on account of a recurrence of hæmorrhage under a compress of lint. Another compress of dry lint was then applied, and this was removed after a week, but before hæmorrhage recurred.—Mr. C. HEATH had the greatest confidence in a graduated compress properly applied, if the limb were bandaged and kept raised and at rest. He had never known it fail. He thought that if this had been done and the compress left alone for a week, no hæmorrhage would have recurred. He had often used the hot iron, but was not so enthusiastic in its favour as Mr. Lee. He would be sorry to trust to it for a large artery, or to make an eschar over a fresh surface. He thought it would be bad practice to ligature the femoral artery for a wound in the plantar arch.—Mr. CRIPPS thought it was important to recognise about where the plantar arch was wounded. The anterior and posterior tibial arteries are very easily compressible at the ankle, and he thought this might have well been done in this case. He referred to Mr. Skey's famous case, in which the radial, ulnar, brachial, and axillary arteries were successively ligatured, but the hæmorrhage was at once restrained by a well-applied bandage up the whole limb. To bandage the entire limb and fix it on a splint was most important.—Mr. BARKER asked if there had been any attempt made to keep the wound aseptic.—Mr. H. LEE explained that the essential point he insisted on was that the iron should be so applied as not to destroy any tissue, but only a little char it.—Dr. J. G. GLOVER referred to a case of a lady with a punctured wound of the palmar arch. He applied a pad of boracic lint and bandaged it firmly on, and put the forearm in a splint. There was no recurrence of the bleeding.—Mr. TURNER replied that he was deterred from relying upon a compress by the sodden state of the tissues of the sole. The compress was left on for a week at least, but no antiseptic precautions were used at first. In one case of wound of the palmar arch treated by the compress, he had seen sloughing ensue; in another tetanus came on. He would only have ligatured the femoral artery on the failure of ligature of the tibial vessels.

Mr. G. R. TURNER also related a case of Ununited Fracture of the Patella treated by Suture of the Fragments. Henry St. C——, aged thirty-nine, seaman, was admitted into the Seamen's Hospital, Greenwich, in August, 1881, with an ununited fracture of the left patella of six months' standing. He had broken the bone first in 1859, and the fracture had been treated in the ordinary way. The uniting medium gradually stretched, and early in 1881 he fell on to the left knee and felt the knee-cap give way between the pieces of bone. The fragments on admission at Greenwich six months later were 2½–3 in. apart. He was helpless, and could only just hobble about with the aid of a stick. On Oct. 26th ether was given, and the fragments exposed by a vertical incision. The lower one was small and comminuted. To drill it obliquely would not have been possible. Two wires were passed through the upper fragment and the larger of the two lower ones. The joint was drained posteriorly on each side, after the manner described by Prof. Lister, and the limb placed on a posterior splint. Strict antiseptic precautions were carried out. The case at first did very well, the temperature on the 27th and 28th being normal, and between 99·2° and 100·2° for the next three days. Shivering occurred on Nov. 1st, and his temperature rose to 102·8° (the highest point it attained). Freer exit was given to the discharges and some pus evacuated. His temperature for the next fortnight ranged between 100° and 102° at night, falling to normal in the morning. There was some burrowing of matter in the ham. After Nov. 21st the discharge lessened, and the wounds gradually healed. Stout wire was removed on Feb. 7th; spray discontinued on Feb. 20th. No attempt at passive movement was made; the patient refused it, saying "all he wanted was a stiff knee." He is now doing work as a porter to the hospital. The patella, enlarged by new osseous deposit, can be moved laterally on the femoral condyles to a slight extent. The man is very active, though the knee is stiff. Although the case did not pursue an aseptic course, the antiseptic precautions largely influenced it for good. It seems to be a mistake to discard them if by any chance the wound becomes septic; the fever in this case was more like slightly exaggerated hectic fever, as seen in a negro, than anything else. The patient, once a helpless cripple, was now earning his livelihood as hospital porter, and was more than satisfied with the result himself. A *résumé* of fifty cases, the majority of them unpublished, was then read, and an analysis of them given, as follows:—

Cases of Fracture of the Patella.

Surgeon.	Recent cases.	Old cases.	Result.
Hector Cameron.	—	1	Thoroughly useful joint.
Lister.	5	2	All excellent results. 8 x cases shown at the Medical Society, Oct. 29th, 1883.
Rose.	3	—	Two cases did well. Shown at the Medical Society. A third case, subsequent, suppurated; impaired movement. Not yet published.
Royes Bell.	—	4	In the third case suppuration and sloughing occurred; slight movement eventually. In one old case wire passed to inner side of patella. Good results in three cases. One case as yet published.
Pye.	—	1	Suppuration and burrowing of matter in the thigh followed, with considerable constitutional disturbance. Anchylosis ensued.
Jessop.	2	—	Good movement in both cases. One case, a compound fracture, suppurated, and for a time there was considerable constitutional disturbance (for nine days). Eventually, after the exercise of passive motion for eight months, the patient recovered with a nearly perfect joint. In the simple case, which did well, no provision for the drainage of the joint was made. Both cases published.
Amphlett.	1	—	Anchylosis. It is doubtful whether suppuration occurred. The patient subsequently sustained a compound fracture of the united patella, and excision of the joint was performed by Mr. W. Thomson, of Dublin. Published.
Wheelhouse.	2	—	Good movement in both. One a compound fracture. No provision for drainage of any kind in this case. Did perfectly well. Published.
Johnson Smith.	—	3	Suppuration and anchylosis ensued. In one case broncho-pneumonia, caused by prolonged etherisation, followed the operation. Not yet published.
Mansell Moullin.	—	1	In this case the operation was abandoned. After the fragments were wired it was found impossible to get them together. The patient did well, and was "no better and no worse" eventually.
Jordan Lloyd.	—	1	Partial movement. The fragments could not be brought nearer than one inch from each other, even after the division of the quadriceps, ligamentum patellæ, and lateral incisions into the aponeurosis of the vasti. The wound for removing the wire suppurated, without affecting the joint. Published.
Holmes.	—	1	Suppuration and anchylosis. "All known antiseptic precautions were taken, but a colleague who helped me in manipulating the wires had not previously washed his hands in the antiseptic fluid. Of course, however, his hands, like everything else that touched the wound, were bathed in the carbolic spray." (Mr. Holmes, St. George's Hospital Reports, vol. x., page 496.)
Henry Smith.	—	1	"Use of limb recovering rapidly." Published.
Teale.	1	—	Good result. Slight impairment of the power of complete flexion. The lower fragment small. It was found necessary to pass the sutures through the ligamentum patellæ into the cavity of the joint. Published.
Holderness.	—	1	Good results; mentioned by Mr. Jordan Lloyd, in his paper in the Birmingham Med. Review, vol. xiii.
Rushton Parker.	—	1	
Howse.	—	4	One patient operated on during the incubative period of syphilis; anchylosis, without any previous suppuration, ensued. Perfect recovery in another case. A third case had but little movement, and the patella broke again whilst passive motion was being employed. Eventually the patient recovered with "increased but not perfect movement." The fourth case still under treatment, doing well. Not yet published.
Golding Bird.	1	—	Still under treatment; doing well. Silk used.

Surgeon.	Recent cases.	Old cases.	Result.
Oliver Pemberton.	—	1	Fibrous union; firmer at the end of three months. The patient was then going about with the knee in a case. Not published.
Sydney Jones.	—	1	Partial movement; returned to work before passive movement was employed. Suppuration, necessitating incisions, followed.
Turner.	—	1	Suppuration and anchylosis; lower fragment comminuted and small. Wires passed right through fragments. No passive movement.
Davies Colley.	2	—	One case a compound fracture; one wire passed right through both fragments. Fibrous anchylosis ensued, allowing slight movement of the joint. Passive movement not yet attempted. The other case resulted in fibrous union of the fragments, with good movement; one wire was passed through the ligamentum patellæ. Not published.
Bloxam.	3	—	Good movement. In one case there was a slight purulent discharge. No rise of temperature however. Not published. Shown at the Med. Soc.
Wood.	—	3	In one good movement; not published. In another partial movement; not published. The third case died of pyæmia; not published. The risks of the operation were explained to the patient, who asked for it to be performed. The skin between the patellar fragments adherent to the femur. Operation tedious. Quadriceps and vasti divided before the fragments could be approximated. Did well for ten days or so, was then attacked with a rigor, the joint suppurated, and the patient died about the third week. Metastatic abscesses present.
Bryant.	—	1	Fragments separated by 1¾ inches; uniting medium thin. Operation performed Jan. 20th, 1882. The wound well washed with iodine water, and dressed with terebene and oil; Leiter's metallic coil applied.—2nd day: Wound dressed; free from discharge; temp. 98·4°.—6th day: Slight purulent discharge; temp. 100·4°.—9th day: Wound healthy; temp. normal.—Feb. 15th: Some burrowing about lines of suture; otherwise doing well.—March 26th: Sutures removed.—April 29th: Bavarian splint; very little movement of joint; good union of patella.—Nov. 2nd, 1883: Joint stiff, but very useful.
Van der Mulen, of Utrecht.	1	—	Good result. THE LANCET, 1880.
Sir W. Mac Cormac.	—	1	The patient, a hard drinker, was the subject of an old ununited fracture of the patella, which rendered his limb useless and his life a burden to him. The fragments were separated by about 3½ inches. It was at his own urgent request that an operation was performed. Quadriceps had to be divided to approximate the fragments. The wound never did well, taking on an unhealthy action at once; the joint suppurated. Amputation of the thigh became necessary, after which the patient rapidly sank with acute septicæmia. Liver and kidneys fatty. Previous to operation all sorts of mechanical contrivances had been found useless.
	21	29	

The cases of Professor Cooper, of San Francisco, are not included in the above table.—Sir ANDREW CLARK congratulated Mr. Turner on his paper; he noticed that he had not, however, made any comparison between the results of this operation and of the other treatments for this condition.—Mr. LISTER had come to the meeting with some trepidation lest he should find that his teaching might have led to the death of a patient operated on for simple recent fracture of the patella, but such was not the case. He believed that the time would come when it would be felt that it was best to operate for recent cases. That would be the time when in all schools antiseptic treatment of wounds would be thoroughly taught, and when, whatever antiseptic method be employed, it shall be thoroughly efficient to prevent all septic mischief. He did not consider any man justified in performing such an operation unless prepared himself to superintend the dressing of the case during the whole critical period, or unless he could leave it in the hands of one whom he could trust as he could himself. In some hospitals the house-surgeon served several masters, some of whom believed in antiseptic surgery, others did not; how could he be expected to carry out strict antiseptic treatment? He thought that it would be well for all London surgeons to make daily visits to their hospitals, as was the custom in Scotland and Germany. Ovariotomists visited their patients daily, and even oftener, and this was known to save human life. The after-treatment of a wound was so important that a surgeon was bound to see to it himself, or to leave it only in the hands of an assistant specially skilled and thoroughly trustworthy. He had that day operated on a scene painter, fifty-five years of age, who broke his patella eight weeks ago, and was treated by a medical man by a plaster-of-Paris splint for seven weeks and then by a back splint. In a week the union stretched about an inch. On moving the stiff joint under chloroform, the soft ligamentous union gave way. The material between the fragments was for the most part soft and imperfect; but fibrous tissue derived from the fascia was spread over both the broken surfaces, and seemed to explain the want of osseous union. Already the fragments were rounded in form, and some dissection of the integuments from them was necessary, and the chisel and hammer had to be employed; the extensor muscle had not to be divided, but the case was more difficult to deal with than more recent ones. The time would come when the treatment which secured a perfect joint in the quickest time, and with no more danger than pertained to very many operations before the days of antiseptic surgery, would be generally recognised as the best.—Mr. T. HOLMES expressed his indebtedness to Mr. Turner and Mr. Lister for bringing this subject before surgeons. No doubt Mr. Lister had convinced himself that the results he obtained by operation were superior to those he obtained without. Mr. Turner had not said how often bony union was obtained after this operation of wiring. It appeared to him that there were three points in connexion with the operation to be discussed. 1. As to its safety. Mr. Lister had said in strong terms that no surgeon was justified in performing the operation unless morally certain of being able to guard against all septic processes. Mr. Turner's cases showed that, whatever Mr. Lister could do, his pupils and followers certainly could not do this. When he himself operated, he did so with the distinct feeling of exposing the patient to severe risk, and in his case the oversight mentioned by Mr. Turner was so slight as to be likely to occur with any surgeon. He could not think it ever perfectly safe to open the knee-joint. 2. As to its applicability. In recent cases there was a prospect of a good result, and even of a perfect result, from other simpler treatment. In old cases with useless limbs the question was a very different one, and the operation was exceedingly justifiable, although it was more difficult and dangerous. 3. Results. Were they better than those of the ordinary treatment? Mr. Lister wrote and spoke as if no other treatment ever led to a useful joint. Mr. Holmes referred to the case of a heavy man with a transverse fracture of the patella. On discussing the operation with this man, he said that three years ago he had broken the other patella and was treated by ordinary measures, and was able to walk, run, and jump as well as before. He had seen many patients as well for all practical purposes after the fracture as before, and he therefore could not think the operation justifiable in recent cases of fracture.—Mr. C. HEATH thought the operation quite justifiable in old cases; but it was because surgeons had not learnt the right way of treating this injury that there were these old cases. It was not the extensor muscle which pulled the fragment up, but the extravasation in the joint; this he got over by aspirating the joint, and he then put on a plaster-of-Paris splint. In a case which came into the hospital that afternoon there was no separation of fragments; he had it put up in a plaster-of-Paris splint at once, and he would show the case to the Society in six weeks' time. The limb must be kept in splints for months. He thought Mr. Lister's paper would cost many knees and many lives. It was impossible in country practice to ensure that your patient should not be exposed to any risk. In recent cases a knee-joint should never be

opened unless every possible precaution could be employed.—Mr. BRYANT had asked the surgical registrar of Guy's to look out the old cases of fractured patella admitted into the hospital for some other reason, and he had given him a list of thirty-two cases.

Mr. Bryant's List.

Age.	Duration of Fracture.	Separation.	Remarks.
57	16 years	1 in.	Well able to work.
41	2 ,,	½ in.	As well as ever.
33	7 ,,	Very close	Ditto.
33	4 ,,	½ in.	Ditto.
33	2 ,,	½ in.	Can go up a ladder, carrying 2 cwt.
37	4 ,,	½ in.	As well as ever.
54	6 ,,	1 in.	Weak; can work.
36	3 ,,	½ in.	[Porter at Billingsgate.
40	17 ,,	—	Lighterman.
32	6 ,,	—	Cabdriver.
64	32 ,,	4 in.	Able to work well as cellarman.
40	8 ,,	—	Laundress.
56	Many years	—	Gardener; good use.
32	7 years	—	Coal Porter.
25	1 year	½ in.	Weak.
24	½ ,,	½ in.	Labourer.
37	1 ,,	Good	Good use.
69	11 years	1 in.	Rather stiff.
30	6 ,,	—	Able to work well.
37	1 year	2 in.	Weak, but able to work well.
47	1 ,,	½ in.	Very weak.
63	2 years	Wide	Able to walk well.
29	½ year	Wide	Groom; able to work.
66	½ ,,	½ in.	Good.
37	6 months	½ in.	Coal Porter.
53	14 years	Wide	Good worker.
47	6 ,,	2 in. (double)	Walks well.
48	14 ,,	Wide	—
52	1 year	3 in.	Good.
43	7 years	?	Carman; good.
50	2 ,,	?	Runs up and down stairs.
43	3 ,,	?	Sailor; good.

After studying that list he could not say that the ultimate results of the present treatment were such as to justify the performance of a serious operation. — Mr. BOULBY asked what was the ultimate result of dividing the quadriceps tendon.—Mr. ROYES BELL said that all his cases of the operation had been old ones. After dividing the rectus tendon the quadriceps muscle was not useless, as there were large lateral expansions of the muscle which were unaffected. His failure was caused by bleeding into the joint, which led to septic suppuration. It was much the best to divide the tendon through the wound, and all bleeding vessels should be tied. All his cases had been previously treated carefully by good surgeons.—Mr. NUNN said that one great cause of the retraction of the quadriceps was disregard of the state of nutrition of the muscle. With the limb kept straight for many weeks or months, the muscle shortened, and it required to be well shampooed.—Mr. MORRIS said that an apparatus of great use in the treatment of fractured patella was one made by Mr. Hawksley, which consisted of a knee-cap which limited to a nicety the amount of flexion possible; gradually the freedom was increased to perfect movement. It was important to have the apparatus extending over the front of the joint, and not over the back. He did not hesitate to say that two of Mr. Lister's cases were not satisfactory results; they only had movement to thirty degrees and could not kneel.—Mr. LISTER: The cases not able to kneel were both old ununited cases, one of whom was quite unable to walk before the operation from atrophy of the quadriceps; the other woman, who had no treatment at first, and was unable to walk, could bend the knee well to the right angle.—Mr. TURNER agreed with Mr. Lister that the time would come when cases would all be treated primarily by antiseptic suture, as that method yielded results superior to any other. He could not answer Mr. Holmes' question as to the kind of union obtained; but in four at least the union was fibrous.

MEDICAL SOCIETY OF LONDON.

Malposition of Tooth.—Paroxysmal Hæmoglobinuria.

THE ordinary meeting of this Society was held on Monday, Nov. 12th, Sir Joseph Fayrer, President, in the chair.

Dr. DE HAVILLAND HALL read notes of the case of a girl, aged fifteen, in whom there existed in the Right Nostril a Misplaced Tooth, which turned out to be the right permanent canine. There were marked signs of hereditary syphilis, and a fetid discharge issued from the nostrils; the nasal septum was also perforated. The tooth was extracted from its abnormal position three months after it was first seen. Such cases were said to be decidedly rare, but one similar instance is recorded in THE LANCET of Nov. 3rd, 1883.—Mr. SEWILL doubted whether the malplaced tooth could be regarded as the cause of the ozæna, for it was quite healthy, and in most examples of misplacement of teeth no inflammation was excited.—Mr. BLACK thought the mode of development of the upper jaw might tend to explain why the canine tooth became so altered in position. He asked whether the notion that a third tooth might appear was well founded.—The PRESIDENT said that he had seen teeth frequently in abnormal situations, and in his experience they might give rise to inflammation and cysts, as in the antrum, where suppuration was known to occur, and be relieved by operation so that both pus and tooth may be discharged.—Dr. HALL, in reply, agreed that the tooth did not set up the ozæna, which was no doubt the result of the syphilitic taint. He said also that a third tooth had been described by many writers.

Dr. STEPHEN MACKENZIE read a paper on Paroxysmal Hæmoglobinuria. The author commenced by narrating three cases. Case 1 was a boy, aged thirteen, who had always lived in the East-end of London. His disease commenced at Christmas, 1881, and lasted till August, 1882. The attacks occurred whenever he went out into the cold air, and only under these circumstances. This occasioned a chill, followed by the passing of water like porter or port wine. In a few hours the urine became quite natural. Case 2 was a man, aged fifty-five, who had an attack eighteen years before, lasting a few weeks. He remained free until the present year, when he again became affected, and the attack lasted three months. Each paroxysm was excited by exposure to cold, when the urine became porter-coloured, and in a few hours, after the patient became warm, it resumed its natural appearance. Case 3 was that of a gentleman, fifty years of age, who had suffered from the disease for twenty-three years. Each attack was invariably excited by cold. The urine between the attacks was natural in colour. This patient had had primary syphilis, but no sequelæ; the others had not; and none of the three had suffered from malaria. Dr. Mackenzie then described in detail the peculiarities of the paroxysmal and inter-paroxysmal urine in this disease. The blood colour of the urine was due to hæmoglobin, as shown by the guaiacum and Heller's tests, and spectroscopic examination, methæmoglobin being sometimes, but not always, present. A few blood-corpuscles were sometimes found, but more often they were entirely absent. The other phenomena of the paroxysm were then described, and what was known of the pathology of the disease was next reviewed. Two things were certain—(1) that blood destruction or dissolution took place somewhere; (2) that this was, in the great majority of cases, due to the influence of cold acting on a morbidly sensitive reflex nervous mechanism. Probably a second factor was present in a peculiarity of the blood-corpuscles. As to where the blood destruction took place the evidence was not quite conclusive, but some recent observations of Boas and others suggested that it was in the exposed parts affected by the cold. Allusion was made to the connexion between this disease and the "local asphyxia," or symmetrical gangrene, described by Raynaud, and examples of which had been recorded by Wilks, Southey, Barlow, Mahomed, &c. It appeared possible that in some cases there was an imperfect formation of the blood-corpuscles, which, under the influence of cold, and possibly carbonic acid, parted with their hæmoglobin more readily than in health. Hæmoglobin had been shown in some cases to be present in the serum. It might be that the kidneys were passive, as whenever dissolved hæmoglobin circulated in the blood, the kidneys separated and eliminated it. This was shown in toxic conditions, as in poisoning with arseniuretted hydrogen, naphthol, chlorate of potash, &c., and in certain fevers, as well as in the hæmoglobinuria of cattle and horses. Some sections were shown of the kidney prepared by Dr. Dreschfeld of Manchester, from a fatal case of hæmoglobinuria from chlorate of potash poisoning. It might be that in some cases the blood destruction occurred in the kidney, but it was certain in some cases that it occurred elsewhere. The few post-mortem examinations that had been made threw no light on the nature of the disease, which occurred at all ages, with a marked predominance in young males. Syphilis had

been shown to have been an antecedent in several cases, and the disease had been cured in some such by antisyphilitic treatment. In others malaria was apparently the cause of the disease, though not in all. Rheumatism had been associated with the disease. It was possible in these dyscrasiæ that an imperfect blood formation took place. As regards treatment, syphilis should be inquired for; and when present treated. In the majority of cases quinine was the remedy of greatest service, even in cases not evidently malarial. Probably some patients who got well when taking quinine would have done so without it. Most patients found by experience that the only way to prevent attacks was to avoid exposure to cold by clothing and habits. But it was possible, as suggested by Dr. Barlow, that gradual accustoming to cold might be at once the most philosophical and successful mode of treatment, and this was decidedly worthy of trial.—The PRESIDENT said that he had seen cases in India which he could not doubt were examples of paroxysmal hæmatinuria, and some of these had happened in the course of intermittent fevers.—Dr. DICKINSON had had large experience of such cases. Sixteen cases had been under his own care, and for one more he was indebted to Sir William Jenner. One fact which came out very prominently from this collection of cases was the remarkable influence which ague or malarial disease seemed to play in the causation. Five of the cases had had ague, and three had resided in a malarial district. In two, other members of the family had suffered from ague; and except in three cases, a strong presumption of malarial influence existed. It must be remembered that malarial conditions of body are very tenacious and come out whenever they have a chance, thereby earning the title of an insidious disease. Paroxysmal hæmatinuria resembled an attack of ague in many ways. It might be said metaphorically that the disease eliminated itself by the kidney rather than through the skin, as in ordinary ague. Then the association of ague and hæmatinuria had been noted, as in a case recorded by Dr. Mackenzie. Dr. Dickinson had had the case of a young woman who had contracted malaria in India under his care. There were undoubted attacks of ague associated with hæmaglobinuria, hæmorrhages in various parts of the body, and purpura. Under the influence of quinine the patient got nearly well; but died some time later from perforation of a typhoid ulcer. At the autopsy, the kidneys showed signs of inflammation in the overgrowth of fibroid tissue and in the blocking of tubes. Besides, there were many areas of interstitial hæmorrhages to be seen around, but not in, the Malpighian bodies. That cases get well of their own accord there could be no doubt. And of the value of large doses of quinine continued for a long time, Dr. Dickinson had no doubt.—Dr. THEODORE WILLIAMS had seen one case in the person of a young officer who had had ague. The malady disappeared without treatment.—The PRESIDENT remarked that the real fact was that a paroxysm of intermittent fever was the least frequent expression of malarial disease. The affection soon tends to lose all periodicity.—Dr. MACKENZIE, in reply, said he did not ignore ague as an element in the causation of the disease. But there were cases, as in one of his own, where no suspicion of malaria could be entertained.

LIVERPOOL MEDICAL INSTITUTION.

THE third ordinary meeting was held on Nov. 8th, T. Shadford Walker, Esq., President, in the chair.

Syphilitic Disease of the Lung.—Dr. DAVIDSON showed a specimen of well-marked specific fibroid growth in the Lung. The patient was admitted with very urgent symptoms, and died in a few days. There was scattered dulness over the right side, and hardly any respiratory sounds to be heard. Dyspnœa distressing, and deep cyanosis. In addition to the extensive fibroid disease there was a large adherent thrombus in the pulmonary artery.

Syphilitic Ulceration of Trachea and Bronchi.—Dr. DAVIDSON also showed a specimen of recent syphilitic ulceration of the trachea and bronchi, with partial stenosis of the right bronchus. The patient, a male aged thirty, was first in the hospital with symptoms of a specific affection of the brain. Of this he was quite cured in a month by iodide of potassium. Four months and a half later he was readmitted with difficult and somewhat stridulous breathing, cough, frequently spasmodic, and free expectoration. The larynx upon examination was found healthy, but there were mucous râles all over the chest. The dyspnœa increased, cough became more spasmodic, with pain beneath the sternum; he grew weaker, broncho-pneumonia set in, and he died. The patient always said that he had never had syphilis, but there were some suspicious scars on the body which with the head symptoms were from the first considered a sufficient indication. At the post-mortem extensive recent syphilitic ulceration was found in the trachea, extending down both bronchi and partially closing the right. There were fibroid testes and a scar on the surface of the spleen. On the arachnoid surface of the dura mater, opposite where the pain had been felt, was a thin organised membrane, the remains no doubt of a specific deposit.

Syphilitic Disease of the Bones.—Dr. HYLA GREVES exhibited a child, aged six, the subject of congenital syphilis. There was a clear history that the disease had been inherited from the mother. The child had the usual specific physiognomy; had suffered from snuffles after birth, and keratitis a few years later. Three months ago a swelling appeared on the right side of the face and another on the forehead; shortly after the lower end of the right humerus became enlarged and the shaft of the left tibia. The tumours were all of them periosteal in origin, the one on the face affecting the ascending ramus of the jaw. The child had been put upon antisyphilitic treatment, and already the swellings were diminishing in size.

Piece of Bone passed through the Bladder.—Mr. REGINALD HARRISON described a case in which the lower epiphysis of a rabbit's femur passed from the bowel into the bladder, and thence per urethram. The gentleman, the subject of this condition, at first presented a tumour in the region of the fundus of the bladder, associated with vesical irritation and severe pain at the lower part of the abdomen. The urine contained pus. He was sounded, but nothing was detected in the bladder, and soothing treatment was adopted. A later examination of the urine showed the elements of fæces, and air now escaped on micturition. One day he passed the piece of bone referred to, and subsequently the symptoms gradually subsided. For a long time his chief trouble was that, when the bowels were loose, fæcal matter would block the urethra; but by the use of small doses of opium, regularly emptying the bladder with a soft catheter, and daily washing out, the fæcal fistula gradually closed, and the patient was now in perfect health. If the above means had not succeeded, Mr. Harrison would have performed cystotomy in order to obtain perfect rest of the bladder. He had reason to believe, from abdominal examination, that the piece of bone was impacted in the transverse colon, which had then contracted adhesions with the bladder and opened into it, thus providing an exit for the foreign body, so unusual an occurrence that he could find only two similar cases on record.

Cardiac Tonics.—Dr. LOGAN brought forward the results obtained at the Northern Hospital by the administration of digitalis, strophanthus, squills, and convallaria in bad cases of mitral regurgitation. Pulse tracings, together with charts of the pulse and urine, were shown as indicating the action of the different drugs. Digitalis in ten-grain doses hourly for eighteen to forty-eight hours was found to be the most efficacious, but occasionally accompanied by nausea or vomiting. Convallaria was free from the objections accompanying the administration of digitalis, but was not so powerful and reliable in its effects. Strophanthus was a valuable cardiac tonic. Squill was useful, but less active than any of the others.—Drs. DAVIDSON and DICKINSON both considered convallaria inferior to digitalis, and believed that any want of uniformity in the action of the latter was due to inferiority of the preparation used.—Dr. CATON had been pleased with his experience of the action of convallaria, especially since it was not accompanied by nausea or vomiting.—Dr. BARR criticised the heroic doses of digitalis, and considered that the tension shown by some of the tracings was of a dangerous degree. In estimating the action of such drugs as these he thought the effect of rest in bed should be first ascertained, especially in hospital patients, who usually experienced great relief from that alone.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on October 11th, Dr. Banham, President, in the chair.

Mr. SIMEON SNELL related the particulars of a case in which a Piece of Steel was removed from the Vitreous by the Electro-magnet. The patient, who was introduced, a

young man, whilst striking a wedge in a coalpit had been hit with a splinter in the left eye. The accident occurred three weeks before he came to the Sheffield Infirmary. A piece of steel was discovered with the ophthalmoscope moving about in the vitreous. It had passed through the cornea at its lower margin, and had penetrated the lens, of which there was slight opacity. It was immediately removed through a sclerotic wound by means of the electro-magnet needle. At the time of exhibition of the patient, twelve days after the operation, the eye was quiet, and V=$\frac{12}{12}$. The fragment weighed ·0046 of a grain.

The President, Dr. BANHAM, read a paper entitled "The Conditions of the Muscles in Cases of Disease of the Spinal Cord." Attention was first called to the condition of rigidity, which occurs as a conspicuous symptom of lateral sclerosis, as well as of many cases of hysterical paralysis, and which was probably due in both cases to unrestrained reflex action, in the one case the controlling impulses from the brain being intercepted by organic disease of the lateral columns of the cord, and in the other from either a want of development of these controlling impulses in the brain, or from their arrest owing to a suspension of function in some part of the motor tract. The rigidity due to sclerosis of the lateral columns of the cord (crossed and direct pyramidal tracts) generally affected the flexors of the upper extremity and the extensors of the lower, and the same condition was frequently met with in cases of hysterical origin. The rigidity from meningitis frequently involved the flexors of both extremities, was spasmodic in character, and generally associated with sensory phenomena. Marked flaccidity occurred where the reflex arc was interfered with, and the course of voluntary motor impulses was also arrested. Such conditions obtained frequently in infantile paralysis as well as in some cases of myelitis. The nutritive condition of the muscles was next referred to, and was described as due to the integrity of the motor nerve fibres, as well as to that of their cells of origin and trophic centres—i.e., the multipolar nerve-cells of the anterior cornua. The condition of the reflexes was next referred to and the reflex arc, upon the integrity of which reflex movements depended, was described. In health both the superficial and deep reflexes were present, and, under ordinary circumstances, their absence must be considered as a morbid sign. It was, however, to be remembered that occasionally they were physiologically absent, and in addition they were absent in very young children and in old people. In the former class the reflex paths seem not to have established themselves, and in the latter their absence was probably due to defective nutrition of the lower part of the spinal cord. A detailed account was then given of the mode of response of nerve and muscle in cases of malnutrition from interception by injury and disease between the distal extremities of the nerves and their nuclei of origin in the anterior cornua, or in the nuclei themselves. It was pointed out that in a comparison of the series of closing and opening galvanic current contractions of healthy muscles corresponding with increasing strengths of current, that the one series differed from the other by a simple reversal of the direction of the current. The changes in the mode of response of healthy and degenerating nerves and muscles were also noted. Drs. Drew, Law, Dyson, and Mr. Garrard took part in the discussion which followed.

At a meeting of the Society, held on October 25th, Dr. Banham, President, in the chair,—

Mr. C. ATKIN read the notes of an obscure case of Pott's Disease, under the care of Dr. Law at the infirmary, occurring in a strong and otherwise healthy labourer in his fortieth year. The symptoms were of a negative character, the only complaint being constant pain in the lumbar region. He remained in this condition a year, when he was suddenly seized with the following symptoms and died in a few days: retention of urine, paraplegia, pyrexia, muttering delirium, and double optic neuritis. At the autopsy, tubercles were found in the lungs and kidneys and disease of the intervertebral disc between the first and second lumbar vertebræ, the body of the bone on either side being infiltrated with yellow tubercular deposit. Mr. Atkin made some remarks on the difficulty of diagnosis and on the probable tubercular origin of the disease, and said that the symptoms were most likely due to an ascending meningitis.

Mr. PYE-SMITH showed a Canine Tooth which he had removed from a dentigerous cyst in the lower jaw of a man, aged twenty-nine. The absence of this tooth from the mouth, without history of extraction, together with the existence of fluctuation in the tumour, rendered the diagnosis pretty certain. The tooth was well developed but mal-placed, the crown looking directly outwards and then facing towards the mouth, which was, no doubt, the cause of its arrest in the jaw.

Mr. W. A. GARRARD read a paper entitled "Notes on the Surgical Treatment of Renal Calculus," the chief part of which was taken up by the relation of two cases: one where he had successfully removed by nephrotomy a uric acid calculus, weighing forty grains, from the pelvis of a man's kidney at the Rotherham Hospital; and the other a case of strumous kidney, with pyelitis and perinephritic abscess, which was at first thought to be a case of calculus; the kidney was explored, the pus evacuated, but no stone was found. After careful examination a drainage-tube was left in. The patient at first went on improving, but ultimately, in three months, sank exhausted by the drain from the sinus, which never closed. A post-mortem examination revealed the fact that the kidney structure was replaced by caseous tubercles, which had softened down, leaving little else than the capsule enclosing a bag of pus, and only a small shell of recent phosphatic deposit. Mr. Garrard thought that cases of calculus would be found to show better results than any other cases of renal disease which were suitable for operative treatment; that nephrotomy in such cases would be found remarkably free from risk; and whilst admitting the great difficulty of making a certain diagnosis in renal calculus, the exploration of the kidney was thoroughly justified. He wished to urge that the difficulty of diagnosis ought not to stand in our way, and that if we have a well-founded belief that a calculus is impacted in the pelvis of the kidney, is too large to pass, and is causing much pain, pyelitis, or other trouble, we ought to cut down and remove it.—A discussion ensued, in which Messrs. Wrench, B. Walker, Pye-Smith, and Atkin took part.

ANASTOMOSIS BETWEEN THE CORONARY ARTERIES; INTESTINAL DIVERTICULA.

To the Editor of THE LANCET.

SIR,—I beg leave to make two remarks on the interesting anatomical matter contained in the report, in your to-day's number, of the meeting of the Pathological Society of London on November 6th. Hyrtl has not held that the blood cannot pass from one coronary artery to another, but that these arteries do not anastomose by their primary or secondary branches, and that the passage of the injection between them is by the capillaries. This is evident enough from what he has written, and I may mention that he restated it to me clearly in a conversation I had with him on the subject in Vienna in 1872, before he had retired from his professorship. With reference to cases of the occurrence of a diverticulum high up in the small intestine, or of the occurrence of several diverticula, I venture to say that these were false diverticula, whatever their coats may have been. My attention has long been particularly directed to the subject, and I have examined many specimens. From its nature there can be only one *diverticulum verum*, Meckel's diverticulum, and situated near the lower end of the ileum, within about three feet from the cæcum. If only twenty-seven cases of Meckel's diverticulum were observed in 3400 examinations, I venture to suggest that some had been overlooked, for in my experience they occur more frequently than in the proportion of 1 in 125 bodies. I have met with two cases in which the true diverticulum was the cause of death; my late colleague Dr. Pirrie met with another; and I am aware of other cases in which that useless remnant of development was the cause of death.

I am, Sir, your obedient servant,

Aberdeen University, Nov. 10th, 1883. JOHN STRUTHERS.

ON the 8th inst. Professors Foster and Macalister were presented for the degree of M.A. in the Senate House at Cambridge, by Mr. J. E. Sandys, the Public Orator, who, in the speeches usual on such occasions, paid no mean tribute to the high position in the branches of anatomy and physiology occupied by Professors Foster and Macalister. The allusions were promptly caught and heartily applauded by the undergraduates.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 17, 1883.

FEW more important discussions have been held at our medical societies than those on the Treatment of Fractures of the Patella at the Medical and the Clinical Societies respectively. Not only are the principles of surgery involved in this question, but also those of ethics, and hence it has come about that very special interest has been excited. Although Professor T. COOPER of San Francisco, in 1861, seems to have been the first to apply a metallic suture to the fragments of a broken patella, it may yet be said that to Mr. LISTER belong the credit and the responsibility of re-introducing to the profession this method of treating the injury. It consists in making a free incision into the knee-joint, drilling the two fragments, and uniting them by a stout silver wire, the ends of which are left hammered down on to the bone. A drain is provided at the outer side of the joint, and all the steps of the operation and after treatment are conducted upon those special lines which will always be associated with Mr. LISTER'S name. Passive motion is begun at the end of about six weeks, and in favourable cases the result is a bony union of the fracture and a knee-joint in all particulars the same as before the injury. If the operation is performed in old cases of badly united fracture, it is often very difficult to get the fragments into exact apposition, and division of the fibrous and muscular structures connected with the bone may be necessary. Not only does this complicate the operation, but the final results are liable to be less good even in the most successful cases. All these points are well set forth and illustrated in Dr. MACEWEN'S valuable lecture which we print in another place, in which he advocates the performance of the operation at an earlier date than does Mr. LISTER, and recommends it also without the latter's expressions of caution. It must be clearly understood that the first and chief element in the success of this operation is that it shall be aseptic from first to last. The other technicalities of the procedure do not present any special difficulties—certainly none that a surgeon at all accustomed to operate would in any way fear. Mr. LISTER and his supporters urge that the operation should be performed in recent rather than in old cases of injury, as the results are then more favourable; and they recommend it because the results obtainable by this means are in their opinion distinctly better than can be obtained by other treatment, and the operation may be conducted with only a minimum of risk, and even with a "moral certainty" of entire freedom from danger. The superiority of the result claimed for this procedure consists first in the bony union of the fragments and the complete restoration of the bone; and, secondly, in the shortness of the time necessary for the entire treatment, which is measured by weeks rather than months.

In opposition to this view it is alleged: (1) That other modes of treatment, when carefully and patiently carried out, are successful in the great end of securing a thoroughly useful limb. In this connexion Mr. BRYANT produced a list of cases taken quite at random from the case-books of Guy's Hospital, which go far to support this assertion. (2) That bony union is no advantage over a close and firm fibrous union. This view was urged by Mr. MORRIS, who adduced in its support the fact that in cases of refracture it is always the bone that breaks, and not the ligament that separates. (3) The ordinary treatment by splints and bandages is entirely devoid of danger to life; this is incontestable. Mr. LISTER asserts that he does not expose his patient to any risk by operating. The list of cases collected by Mr. TURNER conclusively proves that Mr. LISTER'S more or less close imitators cannot do the same, suppuration, anchylosis, and even death having followed in not a few cases. We must not on that account hurriedly conclude that Mr. LISTER in his confident expressions is using the words of thoughtless exaggeration. He claims to have made it clear that all septic diseases in wounds made by the surgeon are preventable; but that they are only preventable by successful attention to a great number of details, the neglect of any one of which may be fatal. It is absurd for anyone to pretend to be able to master all these details without long, patient, and minutely careful study and practice. The other details of wound treatment—the arrest of hæmorrhage, adaptation of flaps, and so forth—are so easy that it is readily to be understood how surgeons have come to think that *everything* in connexion with wound treatment should and must be equally simple. But all experience shows that the practice of aseptic surgery with anything approaching to uniform success is an art only acquired by long apprenticeship. Obviously this apprenticeship has not been served by all the surgeons who are called upon to treat broken patellæ, and there is no operation which more imperatively demands asepticity from first to last than the opening of a healthy joint for any purpose whatever. (4) It is argued, finally, that the operation is the best procedure in those cases of badly united fracture of the patella in which the subject is unable to follow his or her usual employment—cases in which the separation is wide, and the uniting material is weak or perhaps absent. Quite admitting the risk to limb and life, Mr. LISTER'S opponents yet say that in such cases the probability of gain not otherwise attainable fully warrants the surgeon and the patient in running the risk. They insist, however, that these cases would never be seen if proper care were taken in their primary treatment; and that certainly any surgeon who failed in this far simpler duty would be quite unqualified to undertake the graver one of performing the metallic suture. Mr. LISTER, on the other hand, while not withholding the operation from these secondary cases, for the reasons already given, considers them far less suitable subjects than the primary.

This we believe to be an impartial statement of the points at issue in the discussion. To what conclusions does an equally impartial consideration of them lead? We think to these:—1. That the operation is not suitable as a primary measure. 2. That in view of its dangers, and of the good results obtained by other and perfectly safe methods of treatment, it is not commendable for general employment. 3. That it is not justifiable unless performed with every known precaution for securing an aseptic course of the wound; and that, in view of the difficulties of *ensuring* this, only those who have

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had considerable experience and success in this department of surgery should ever undertake it. 4. That greater pains should be taken in the treatment of primary fracture of the patella to secure close approximation of the fragments and to prevent stretching of the uniting material until it has become quite dense and firm. 5. That where simpler measures have failed to bring the fragments into tolerable proximity, this operation should be performed at the earliest possible time—say, a month after the primary injury.

We look for at least two valuable outcomes from this discussion: the first, greater care in the ordinary treatment of this injury; the second, increased interest in a mode of treatment that can show such results as those given by Mr. LISTER at the Medical Society, leading to more determined efforts to acquire a thorough mastery over the processes of wound-healing, at least so far as the prevention of all septic infection is concerned.

Perhaps we have not yet witnessed a greater testimony to the change which has come over the treatment of wounds within the last fifteen years—the chief share in the credit for which undoubtedly belongs to Mr. LISTER—than the very fact of this discussion. Less than a generation ago it would have been impracticable, and anyone who would have proposed such an operation would have been regarded with distrust. Now the suggestion commands serious discussion, and the strongest epithet applicable to its author would be that of "enthusiast," which has, after all, been the proud title of some of the world's greatest benefactors.

WE have now reached the period of the year which marks the incubative stage of Government measures. And it is time to remind ourselves and the Government that one of their best measures, which last session passed far beyond its incubative stage, was at the last moment stopped in the House of Commons in a way which there is no reason to think will be repeated. A measure which is based on the report of a Royal Commission; which fulfils objects that are likely to be advantageous to the profession and just to those who seek to enter it, as well as to the public; which completes the Act of 1858 by trying to make the diplomas of all divisions of the kingdom fairly equal in significance, as that Act made them equal in law,—such a measure, long demanded, is not likely to be abandoned by the Government, at least before it has been fully debated in both Houses of Parliament. We have every reason to believe that the Government is more than ever determined to submit this measure to the judgment of Parliament. It would be indeed a mockery of Parliament and the profession not to do so, even if Ministers were themselves apathetic. Something is due to a Royal Commission which at great cost has investigated a difficult subject; something is due to Parliament, which sees in such investigations the proper material for legislation; something is due to old corporations which need adjustment to new times, and something to young students overloaded with examinations and exactions of multiplied bodies, many of which have no longer any *raison d'être*. But Ministers are not apathetic; they have good reason to be interested in this subject. It has given them much trouble. The President of the Council and the Vice-President of the Committee last year took an enormous amount of personal trouble to understand this question. They abandoned themselves to receiving deputations; no corporation was too ancient and no interest was too slight to be refused a hearing. These Ministers saw not only that this question was one to be settled and disposed of seriously, but they came to see that it is one of great promise and value, and that very much good is to be done by legislation. The education of the medical profession is one of the most important subjects on which a State can legislate, and the bodies responsible for trying it and supervising it need to be raised out of all petty and parochial notions and relations. Each of them is acting for the State, and the guarantees for their acting impartially and fairly should be such as to satisfy all divisions of the kingdom. Such are the views of the medical profession, and such we believe to be the views of the Ministers who last session showed such great patience and took such great pains to understand the bearings of this matter.

If this Medical Bill does not become law during the next session, and before that session is very old, there is good reason to believe that it will not be the fault of Her Majesty's Government. The responsibility will rest elsewhere. We will not anticipate the repetition of attempts to defeat legislation so powerfully recommended by authority and considerations of common sense and fairness as this is, and which errs, if it errs at all, in perpetuating too many superfluous bodies. If the opponents of the moderate Bill of the Government really contemplate any serious opposition, they would do well to remember that every successive Bill on this subject goes further than its predecessor, and that already very grievous harm has been done to the prestige of bodies which have resisted the reasonable proposals of the Bill. We believe that the changes contemplated by the Bill will be beneficial to every corporation in the profession that deserves to survive. Under these circumstances serious opposition to the Bill, though it might possibly temporarily succeed, would ultimately bring about a far larger measure, and one dealing much more summarily with existing institutions. We shall see no harm, but good, in attempts to introduce in committee reasonable amendments, and we are persuaded that every such amendment will meet with the fairest consideration at the hands of the Government. But we hope that any serious attempt to alter the main features of the Bill will meet with the completest failure.

THE draft statutes and regulations for the medical degrees prepared by the Council of the Victoria University in Manchester were submitted to the Court of Governors on the 7th inst., and after some consideration were adopted. We have now for the first time presented to the medical public an outline of the scheme for the courses of study and examinations which the authorities deem necessary for the degrees of Bachelor and Doctor in Medicine, and Master in Surgery, and we can appraise the value and position with which the new titles are likely to be regarded by the profession. The entrance examination in Arts includes Latin up to the standard of the grammar examination of the old universities; elementary mathematics and English, with any two of the following subjects—viz., French, German, Greek, and more advanced mathematics. This is obviously not intended to be so difficult a portal as the matriculation examination at

the University of London, or the previous examination at the Universities of Cambridge or Oxford, and more nearly approaches the educational tests of the Scotch universities, or perhaps the higher local examination standards of the English universities. Evidently a high qualification in classics and mathematics is not a *sine quâ non* for the new degree. The student will then study during a year for his preliminary examination in science; and here again the standard is obviously based on the Scotch model, and is in every way, as a test of scientific proficiency, inferior to the preliminary scientific M.B. examination of the London University, although the students are required to devote the same length of time to the study of the subjects. From the report before us, these would seem to be chemistry, elementary biology, elementary mechanics and physics; but whether a merely theoretical or a practical knowledge will be demanded does not appear. The intermediate examination for the degree of Bachelor of Medicine—the old first M.B. of the University of London—will include anatomy, physiology, materia medica, and pharmacy, and follows the usual line of medical examinations. Before being allowed to present himself, the candidate must have studied anatomy for a period of two years. The quality and limits of this examination are not indicated, but we shall probably not err in comparing them to the Edinburgh rather than to the London standard. The final examination for the M.B. degree will apparently, on the Cambridge plan, be divided into two parts, so that one-half may be passed at the end of the fourth, or even the third year, and the remainder at the close of the educational course. We have not yet seen the courses of study which will be insisted on before the candidate can enter for these later examinations, but they will probably differ but little from those now demanded by the Royal Colleges of Surgeons and Physicians of London. It is evident that the experience of the teachers at Owens College in their capacities as examiners at the London University and as critics of its system, has determined them to fix on a lower standard for the Victoria degrees. The new Bachelors of Medicine will be drawn from the ranks of those who would have obtained their titles in Edinburgh and Glasgow, or have contented themselves with the ordinary London medical qualifications. The new attraction will scarcely withdraw from the universities of London, Cambridge, or Oxford one student who is ambitious of their higher distinctions. There is no distinctive feature about the new regulations which will entice students from other centres, unless the standard be low enough for the majority of students at Owens College to obtain the degree, and we do not apprehend that this will be the case. To our thinking the education at Owens College is now sufficiently good for any student, and the degree is only an unnecessary and extra inducement for the North of England students of medicine to study at Manchester. Continuous systematic study, as well as examinations, is, in the case of medical students, as stringently insisted on by the University of London as by any other examining body, and is as fully developed and carried out in the medical colleges and schools of the metropolis as in any other part of the kingdom. The University of London may be lax in its demands for collegiate instruction in the case of arts, laws, and science, and so far the secession of Owens College may be justified; but it certainly is not so where degrees in medicine are concerned. If, as an eminent professor has said, the Victoria University must "brand its own herrings," it should first see in what respect they would differ from other brands, and whether there is any real necessity for their introduction. The authorities would seem to have some misgiving on this point already, for they intend to make the Doctorate a very special matter, and to insist not only on the right of examining the candidate in any subject, which right we expect will be very rarely exercised, but also that he shall have performed some great original work or research, and so represent to the world the best product of their University and Medical School. Why not demand the same qualifications for the Mastership in Surgery? This title should surely be equal in position and dignity to the Doctorate in Medicine, and not be granted by examination only to Bachelors of Medicine of one year's standing.

THE article in the *National Review* by the Marquis of SALISBURY, and the pamphlet entitled "The Bitter Cry of Outcast London," giving some results of an investigation into the condition of the abject poor instigated by the London Congregational Union, have excited a great deal of attention, but certainly not more than the facts they contain and imply amply justify.

As regards Lord SALISBURY'S article, it is to his Lordship's credit that he should employ the leisure of Opposition life in directing his own attention and that of the public to the difficulty which is felt by the poorer classes of artisans and labourers in getting a reasonable amount of decent house accommodation at anything like a moderate rent. Such accommodation as is provided by the Peabody Buildings, and the blocks erected by such companies as that over which Sir SYDNEY WATERLOW so ably presides, are not available for tenants whose wage does not reach at least 23*s.* or 24*s.* a week. Lord SALISBURY'S practical suggestions are these: first, that the State might advance money at a low rate of interest to such bodies as the trustees of the Peabody Fund; secondly, that all railways should be compelled, as the Great Eastern is, to facilitate access to the suburbs by the working classes; thirdly, that Government should set an example of providing house accommodation on easy terms for its own *employés* in the Post Office, in the police, in the Custom House, &c. Lord SALISBURY thinks this example would probably be followed by leading companies and other large employers of labour. At the end of his paper he gives proper prominence to the efforts of Miss OCTAVIA HILL and her fellow-workers, who, with no command of large capital, but by good judgment in the purchase and improvement of old property, by close personal attention, by benevolent encouragement of tenants, even of faulty tenants, &c., have achieved results satisfactory both in pecuniary and other respects.

The pamphlet of the Congregational Union ought to be read by everyone. It repudiates all desire to be sensational, and professes only to record facts. If so, so much the worse for the facts, which give a sad picture of the abject poor in the following respects: "Non-attendance at worship; the condition in which they live; immorality; poverty; heart-rending misery; child-misery." We cannot give here the

facts in any detail. Here is one case, said in the pamphlet to be a fair specimen:—

"At the top of an otherwise empty house lived a family; the husband had gone to try to find some work. The mother, twenty-nine years of age, was sitting on the only chair in the place, in front of a grate destitute of any fire. She was nursing a baby only six weeks old, that had never had any thing but one old rag round it. The mother had nothing but a gown on, and that dropping to pieces; it was all she had night or day. There were six children under thirteen years of age. They were barefooted, and the few rags on them scarcely covered their nakedness. In this room, where was an unclothed infant, the ceiling was in holes. An old bedstead was in the place, and seven sleep in it at night, the eldest girl being on the floor."

We feel constrained to give one or two instances of the grinding pittances paid for women's labour, which might well excite the attention of the public, and the shame of some employers.

"Women, for the work of trousers' finishing (i.e., sewing in linings, making button-holes, and stitching on the buttons) receive 2½*d.* a pair, and have to find their own thread. We ask a woman who is making tweed trousers how much she can earn in a day, and are told one shilling. But what does a day mean to this poor soul? *Seventeen hours!* From five in the morning to ten at night—no pause for meals. She eats her crust and drinks a little tea as she works, making in very truth with her needle and thread, not her living only, but her shroud. For making men's shirts, these women are paid 10*d.* dozen, lawn tennis aprons 3*d.* a dozen, and babies' hoods from 1*s.* 6*d.* to 2*s.* 6*d.* a dozen. In St. George's-in-the-East large numbers of women and children, some of the latter only seven years old, are employed in sack-making, for which they get a farthing each. Here is a woman, who has a sick husband and a little child to look after. She is employed at shirt-finishing at 3*d.* a dozen, and by the utmost effort can only earn 6*d.* a day, out of which she has to find her own thread."

The great matter, after all, is to know the real amount and explanation of such misery as the above, which is declared to be but a "fair specimen" of that encountered by City missionaries and others who visit the poorer districts of London. Lord SALISBURY himself enlarges upon the necessity for information. It is difficult to believe that there can be any large amount of "honest poverty." But if so the sooner we know it and make provision for its relief the better. Economic laws are all very well; but the honest hungry must be fed; the honest naked must be clad; and the State must feel itself responsible to some extent for the housing of the decent poor. The days are gone by when the State was understood to be nothing else than a taxing, law-making machine. It has to work—*wisely*—for the happiness and health of the people, especially of the most helpless classes; and it has to abolish or discourage all that is prejudicial to these. We believe that in most cases of abject poverty there is an element of personal blame—be it improvidence, or drunkenness, or temper, or idleness. In the above instance, for example, of the poor woman with six children there was obviously such an element. From the facts given it is clear that she had married at the age of fifteen—an initial error which it is hard to rectify in such conditions. The element of drunkenness—in one or both parents—and its relation to bad housing wants thorough investigation. It is the fashion now among some social philosophers to regard it as a necessity arising out of the bad sanitary conditions of the people. But it is equally plausible to say that the bad housing is an inevitable effect of drinking. A man with something less than a sovereign a week often spends three or four shillings a week on beer. Yet Lord SALISBURY has not a word to say on this selfish and "embarrassing" use of a sixth part of the man's income, or on legislation to help him to a better use of his money. By all means let these great evils of our social state be probed to the bottom, with a view to their mitigation or their abolition. But it will tax the most powerful Legislature to exterminate poverty if it does not promote virtue and temperance, and the notion of self-help. There is much for the public to do in a benevolent way, and there is equally much for the State to do. But neither the action of the State, nor the benevolence of the public will avert the consequences of personal improvidence and vice.

Annotations.

"Ne quid nimis."

THE LONDON HOSPITALS AND THE HOSPITAL SATURDAY FUND.

NOTWITHSTANDING Mr. Hamilton Hoare's answer to Mr. Burdett, it must be admitted that the latter gentleman has pointedly expressed some very prevailing opinions as to the Hospital Saturday Fund. We ourselves have steadily felt and said that the Hospital Saturday organisation has not satisfied moderate expectations. It has raised far too little money; it has raised this at a great cost—that of 14 per cent. of the collection; and with a minimum of achievement in the way of collection it has displayed an exaggerated idea of the advantages which it was to have in exchange for its awards. This idea has been moderated by reflection and by public opinion. But it must still be admitted that the Hospital Saturday Fund has practically failed. Mr. Hoare points out that the Hospital Saturday collection is increasing year by year, and that the expenses are diminishing, and he shows, perhaps not quite conclusively, that a large proportion of the fund, 18*s.* out of every 20*s.*, comes from the working classes. The cause of the Hospital Saturday Fund has been ably argued also by Lord BRABAZON, in *The Times* of Wednesday. But still here we are, after ten or twelve years, with an annual contribution of £6000 or £7000 from the working classes to the hospitals of London, which are in an extreme state of impecuniosity. Of course it is for the working classes themselves to determine how they will give their contributions. But nobody doubts that, with their well-known power of organising and contributing in any cause they believe in, they could make an infinitely better and more creditable appearance as friends of hospitals than that which they make in the Hospital Saturday Fund. The hospitals themselves, as Mr. Burdett suggests, have much to do and much to learn in the way of developing popular sympathy and support. But the leaders among the working classes should at once see that London hospitals have a powerful claim upon them, which has been poorly and unworthily recognised.

THE CONTAGIOUS DISEASES ACTS.

THE annual meeting of the Royal Albert Hospital at Devonport on the 7th inst. could hardly have been expected to have taken place without a decided opinion being expressed by the governors and subscribers on the effect of the abolition of the compulsory clauses. The speakers—including the President (Mr. J. Carpenter-Garnier, M.P.), the Earl of Mount Edgecumbe, Archdeacon Earle, Admiral Sir Houston Stewart,

and the Mayor of Plymouth—all testified to the disastrous results of their suspension. Juvenile immorality had greatly increased. As Archdeacon Earle graphically put it, "the number of juveniles leading an evil course he saw in the streets was enough to grieve the heart of any father," and "contrasted greatly with a year ago." Rescue and prevention are much less frequent, whilst open profligacy has become rampant, and the condition of the streets is relapsing again into the disgusting state which preceded the passing of the Acts. The statistics which were adduced told the same tale only too plainly. Official returns show that during the five years preceding the suspension of the Acts the average number of admissions into the lock wards was 1589, and the average duration thirty days, whilst the first quarter under the present voluntary system gave the average number of admissions as 51, and the average duration forty-five days. As immorality had notoriously increased the amount of contagion spread, and the increase in the severity of the disease can be readily estimated by our readers. The average number of cases of syphilis contracted among the military in the district during five years on the old system was 30·87 per 1000, whilst in the first quarter of the voluntary system the ratio had risen to 102·5. In the Naval Hospital at Stonehouse, on Sept. 1st, 1882, the date of the Admiralty inspection, there were 261 cases, of which 45 were venereal and contagious, whilst on the day of inspection in this year there were 169 venereal cases out of a total of 426. More striking even than these were the figures mentioned by Archdeacon Earle, showing that in the port of Plymouth in the six months ending Oct. 1st, 1882, 997 cases—277 females and 720 males—were treated, whilst during the past quarter of this year the number was 1282, of which 91 were females and 1191 males. We feel quite sure that the Acts must and will be replaced on the Statute-book; but the injury that will be done in the meantime is incalculable, and is the more pitiable as it is so clearly and to such a large extent preventable. It will take many years after the restoration of the Acts before Plymouth can secure that their working will be as efficient as at the date of their suspension.

"THE BRAIN AS AN ORGAN OF THE MIND."

DR. DAVEY of Bristol has a great and long-standing reputation in lunacy, and his address as President of the Medico-Chirurgical Society of Bristol (which has been published in pamphlet form) is full of interest; but there is one point to which we must draw attention, with the view of taking some exception both to the matter and form of his argument. Dr. Davey instances the title of Dr. Bastian's classic work, "The Brain as an Organ of the Mind," to illustrate what he conceives to be a fallacy. He asks his readers "to fancy a work with this title—viz: 'The eye as an organ of the sight;' or 'The lung as an organ of the breath;' 'The liver as an organ of the bile;' or 'The stomach as an organ of the digestion.'" It is needless to point out that the cases are not parallel. It is at least conceivable that there may be an intelligent soul or consciousness of which the brain is the organ, and that the capacity of the cerebrum may limit the exercise of that consciousness in the life of relation, as the range and power of a musical instrument may limit the performance of a musician; but it is not conceivable that there should be sight without an eye, because sight is not a principal, but a secondary or subsidiary, function. Dr. Davey's view is, moreover, unphysiological in a developmental sense, and unscientific on the broader ground of evolution through the environment. He instances the liver. Well, the first rudiment of a liver is found in the form of a few scattered and isolated biliary cells in the gastric organism of that little cilio-brachiate polyp, the *Bowerbankia densa*. As soon, in the progression of development, as a need for the formation of bile existed, an organ was developed slowly and progressively for its elimination. So with the lungs and the stomach *function* preceded organism in the order of development, because function is elicited by the needs of the environment. We are nearly, if not quite, one with Dr. Davey in his conclusions, but neither are his premisses sound nor his methods of reasoning entirely satisfactory. The instances we have given will serve to illustrate our meaning.

THE REGULATION OF TENEMENT HOUSES.

WE are glad to note that the Vestry of St. Luke's, Middlesex, has decided to apply to the Home Secretary for power to enforce Section 35 of the Sanitary Act, 1866, with regard to houses let in lodgings or occupied by members of more than one family—houses which are more commonly designated tenement houses. The section in question gives power to the sanitary authority (1) to fix the number of persons who may occupy such houses; (2) to register the houses; (3) to inspect them, with a view to their being kept in a cleanly and wholesome state; (4) to enforce adequate means of privy accommodation and other appliances necessary for cleanliness and health; and (5) to secure the cleansing and limewhiting of the premises at regular intervals. The section has its counterpart in Section 90 of the Public Health Act, 1875; and under the latter, which does not apply to the metropolis, many local authorities have made codes of bye-laws affecting this class of houses. The Local Government Board has also, with a view to secure efficiency as regards the codes in question, issued a model set of clauses relating to nearly all the subjects to which the section applies. The metropolis has, however, been sadly behind the provincial towns in this as well as in many other sanitary matters, and the decision which has now been arrived at in St. Luke's is probably in great part due to the meetings which during the past summer were held under the auspices of Mr. Stansfeld and Mr. Samuel Morley, at which the experiences of a philanthropic lady who has the question much at heart, and those of medical officers of health and other persons, were recorded. At these meetings it transpired that some of the metropolitan vestries had made certain regulations, but either because they were *ultra vires*, or because they were otherwise faulty, they were not enforced, and this class of dwelling was practically under no control whatever. The result was that, apart from instances of overcrowding which were repugnant to the moral sense, and of unhealthy conditions, inside the numerous separate tenements of which such houses are composed, the common staircase, which is, as a rule, kept open all night and not subjected to the supervision of any such person as a "landlord's tenant," was declared to have become a place for the deposit of filth and a resort for persons of the lowest class who had no right of entry at all. One medical officer of health distinctly declared at one of the meetings in question that vestrymen themselves were at times the proprietors of the worst of these houses, and that it was these persons, in their capacity of "tenement-mongers," who mainly stood in the way of the adoption of proper regulations. This statement finds support from what is now recorded of the proceedings of the St. Luke's Vestry. According to one of the reports, it is stated that the tenement property in that parish is subject to disgraceful overcrowding; that in forty tenement houses inspected by one vestryman only one good closet could be found; that conditions of dilapidation and of filthiness involving risk to health were met with in many instances; that one room visited had not been whitewashed for twenty years; and that the same room was at times occupied for sleeping purposes by father, mother, sisters, and brothers alike. The example set by the St. Luke's vestry will, we trust, soon be followed by all the other metropolitan vestries,

for in all parts of London good would result from the supervision thus initiated; and those proprietors—of whom we are glad to believe there is a considerable number—who do now properly regulate their tenements would have nothing to fear from restrictions aimed at a very different class of landlord.

REFLEX MUSCULAR CONTRACTION.

ALTHOUGH the phenomena of a simple muscular contraction and of the tetanic state have been fully studied on so-called muscle-nerve preparations, yet as much cannot be said of the muscular contractions resulting from reflex stimulation. M. Beaunis has communicated to the Académie des Sciences some observations made on this question. A single mechanical or chemical stimulation of the peripheral end of the sensory fibre of a reflex arc showed that the muscle at the other end of the arc contracted differently from a muscle which was directly stimulated. The amplitude of the contraction was less, the duration was longer, the period of latency was increased, and there was more frequently a certain amount of consecutive contraction in the indirect method. These facts have already been partly indicated by Wundt. The tetanic state induced in a reflex manner is widely different from the tetanus of a simple muscle-nerve experiment. The chief contrast is seen in the variability of the former; the contraction resulting from a series of rapid shocks applied at the sensory end of the reflex circuit is sometimes in the form of a simple curve, sometimes very slow, like that obtained from plain muscular tissue, and sometimes takes the appearance of irregular contractions more or less fused. The reflex tetanus appears much later than the direct, and may only be seen after the cessation of the tetanising excitation. The duration of the reflex tetanus is independent, within certain limits, of the duration of the excitation. Strychnia modifies the reflex tetanus by tending to assimilate it to the direct type. M. Beaunis thinks that the employment of strychnia by previous experimenters is the reason why the normal phenomena of reflex tetanus have hitherto been misunderstood. It is exceedingly probable that all the variations between the two kinds of phenomena are to be explained on the supposition that the nerve centres intervene between the afferent stimulus and its effect on the muscle beyond.

CORONERS AND UNCERTIFIED CAUSES OF DEATH.

MR. DAVID DAVIES, the medical officer of health for the city of Bristol, has recently made a special report to his sanitary authority with reference to the number of uncertified deaths registered within his district. It appears that during last quarter the causes of 31 deaths within the city were not certified either by a registered medical practitioner or by the coroner; and the medical officer calls especial attention to the fact that only one of these 31 cases of uncertified death was brought under the notice of the coroner. The report states that 26 of the 31 cases were of infants aged less than a week, 2 were cases of children aged one and two years, and the remaining three were adult cases. It may be presumed that no medical practitioner was in attendance during the last illness in any of these 31 cases, and the law makes no provision for certifying the cause of death in such cases, except by the elaborate and expensive process of holding an inquest. Registrars are instructed to bring under the notice of the coroner all deaths occurring from violence, or attended by suspicious circumstances, whether the causes be certified or uncertified. In Bristol, at any rate, nine-tenths of the uncertified deaths are cases of infants whom it may be presumed were born and who died under the care of midwives, and one of the local registrars has informed the sanitary authority in a letter upon the subject that in all such cases the registrars require a written statement from the midwife. All will agree with Mr. Davies that the laxity of the present system with regard to the registration of uncertified deaths is most unsatisfactory, and affords, in the case of infants, dangerous facilities for criminal neglect, and even for infanticide. It is very doubtful, however, whether any remedy could be provided in the present state of the law, and the facts clearly point, as Mr. Davies says, "to the need of Imperial legislation on the subject." Even were the Registrar-General to be induced to instruct his registrars to report *all* uncertified deaths to the local coroner, very few coroners would be found to hold inquests in the cases of infants, aged a few days, dying under the care, or neglect, of the midwife attending the mother. It is, indeed, tolerably certain that county and borough authorities would, under present circumstances, refuse their consent to the necessary increase in the cost of inquests that would result from holding such inquiries in *all* cases of uncertified deaths. At the same time we agree with Mr. Davies that it is undesirable that the discretion as to the reference of cases to the coroner should be left with registrars, although their assistance in the matter seems at present to be indispensable. This responsibility is not imposed by law, and is one of which registrars would be only too glad to be relieved. It seems desirable that some arrangement should be made by which coroners could be furnished with a copy of every entry in the death register immediately the death is registered, thus relieving registrars of all responsibility in the matter, and placing it in the proper hands, those of the coroner, who would thus have the means of instituting all necessary inquiries through the coroner's officer.

THE DRAINAGE OF ST. RAPHAEL.

FOR some time the popularity of St. Raphael has been on the increase. From a mere seaside village it has grown into a small health resort. Hotels were hastily built, and there are villas rising everywhere—amid the fields, the pine woods, and the olive groves. The Marquis of Salisbury selected this place for a winter retreat last year, and his example will not fail to attract many others. It therefore seemed to us urgent, before the popularity of the town was further developed, to make some inquiries as to its sanitary condition. The result shows what care should be exercised before recommending a town merely because it is acquiring a name. That St. Raphael is not sheltered from the mistral is obvious to anyone who will give a cursory glance at the map. The town also lies low and close to the sea, but these are objections that only apply in certain cases. We would, however, earnestly protest against the system of drainage. It would have been unreasonable to expect there anything better than what is to be found in all the neighbouring stations, but we did not anticipate the extraordinary perversity displayed in making matters infinitely worse than they need be. A great number of streets have now sewers which are all, of course much too large, so that the water passing through them does not suffice for purposes of cleanliness; but this is a defect common to every town on the Riviera. For the most part these sewers converge towards a little watercourse called the Dragonnière, which has been arched over and converted into a main sewer as it passes through St. Raphael. The arch is made of hollow porous bricks and rough masonry, while immediately above, incredible as it may seem, is built a whole row of houses. The floor of the sitting-rooms cannot be three feet above the arch of the sewer. As for the invert, it was totally invisible, being covered with one to two feet of solid deposit—mud, dirt, stones, grease, filth of every description,—a little soapy water trickling through the crevices. At the other extremity, the entrance of the sewer was perfectly dry. We followed the

course of the rivulet some distance, and there was not the slightest trace of water. Heavy rains alone supply water, which disappears again after a few hours' fine weather. This rivulet and sewer combined fall into a somewhat large river, the Garonne. Here another nuisance arises, for there is a huge sandbank that prevents the water flowing into the sea. A large stagnant pond is the result, and it is only the overflow from this pond which, in rainy weather, escapes over the sandbank into the sea. The sewage, in the meanwhile, has had time to deposit whatever solid substances have not remained in the sewers, hence only comparatively pure water escapes into the sea. Fortunately, the number of inhabitants being very small, the nuisance is not so great as might be imagined; but it is terrible to think what will ensue if a large colony of visitors settle here before these evils are remedied. Strange to say, instead of cutting through the sandbank and allowing all the foul water to flow away, the inhabitants have preferred building a long bridge over the pond, and retaining the sewage water, in which they unconcernedly wash their dirty linen! After this last illustration of ignorance or indifference we felt somewhat despondent as to the future prospects of sanitary reform at St. Raphael.

POPULAR HEALTH LECTURES IN BIRMINGHAM.

THE first of a series of six popular lectures on health was given by Dr. Heslop, on the 8th inst., in the lecture theatre of the Midland Institute, the subject being "Ways and Means of Health." So much interest was exhibited by an intelligent population in this attractive title that large numbers of people were unable to gain admission, in consideration of which Dr. Heslop kindly promised to repeat the lecture on the following evening. A great part of the time was devoted to the question of the feeding of infants, in reference to which Dr. Heslop strongly advocated the use of milk, and deprecated the abuse of various foods so called. He quoted Dr. Parkes with regard to the influence of alcohol on growing people and in adult life, and emphatically denounced the common tendencies to the belief of its efficacy as a substitute for proper food. He pointed out the advantages gained from sanitary legislation in reducing the mortality and improving the health of the borough, and paid a just compliment to the department superintended by Dr. Hill, the medical officer of health for the town. The lecture will be printed and sold for one penny, so that the valuable information it contains will be within the reach of all. Dr. Heslop's earnest and disinterested advocacy of all means calculated to elevate the character of the profession, his forcible denunciation of everything base and ignoble, and the zeal of his public life have gained for him the highest honours the town can give, and entitle him not only to speak with authority, but to be heard also with a grateful recognition of his valuable services.

"COURTESIES OF RAILWAY TRAVELLING."

MR. J. PRIDGIN TEALE of Leeds has written to one of the local newspapers to complain that he recently took cold in consequence of a carriage window being left open by a passenger quitting the train while he was asleep. Our sympathies are of course with Mr. Pridgin Teale, but that gentleman's experience was not wholly untoward. The cold he unwittingly caught was, no doubt, quite thoughtlessly inflicted upon him by his fellow-traveller, who must be deeply distressed, if he reads the *Leeds Mercury*, to learn that the consequence of his neglect has proved so serious to a member of that profession which, according to the popular view of things, ought to be proof against the ills it is commissioned to cure. If Mr. Pridgin Teale's letter should induce railway passengers to be more considerate for the comfort of their fellow-travellers, it will do good. In the old coaching days, however, travellers were wont to be even less courteous than they are now. Then it was a favour of very high degree to have a window up or down to suit the convenience of any passenger except the one sitting with his face to the horses and close to the window in question. If one of the other travellers did not wish to be suffocated, he found it necessary to push his elbow "accidentally" through the glass, or in some way to hamper the sash. If, on the other hand, he was fearful of cold, unless he could jerk the sash out of its groove so that it could not be put down, there was little chance of his being accommodated. Railway travellers are either better mannered or, in some way, more amenable to reason than the "insides" of the old coaches.

GUARDIANS AND HABITUAL DRUNKARDS.

THE Guardians of Newcastle-on-Tyne have passed a resolution in favour of memorialising the Local Government Board to take steps to procure such an amendment of the law as will give power to the guardians to establish or maintain inebriate retreats, either in connexion with existing workhouses or asylums, or in separate establishments, as might be thought desirable. The Newcastle Guardians have forwarded their resolution to other boards in the hope of getting them to join in their views. The Toxteth Board has decided against what the chairman called the "fad" of the Newcastle Guardians, on the ground that it would be a monstrous thing that persons who had spent their money in drink should become a burden on the rates. But these are just the persons who do become a burden on the rates. It is they who make the principal demands already on the ratepayers; and it is this very fact which gives guardians some right to a strong opinion on the public treatment of habitual drunkards. If ratepayers have in the long run to maintain drunkenness and drunkards, it seems not altogether unreasonable to give guardians some control over drunkards before the helpless stage is reached, and while there is yet a chance of saving them from becoming permanent charges on the union.

SUICIDES BY MEDICAL MEN.

IN our last issue we discussed the question of responsibility in relation to the science and practice of medicine, and incidentally alluded to the state of mind of the suicide, but the fact that no less than four cases of suicide by medical men have occurred within the past few months is so terribly suggestive that we cannot forbear to notice these grim cases as *incidents* as well as in the light of principle. It is a deplorable reflection that even in their dire extremity the students and practitioners of the art of healing, which relates to mind as well as body, are not sufficiently appreciative of the resources of medicine to seek comfort in their trials instead of escape at any cost. Undoubtedly medical men are subjected to enormous mental strain, both in study and in the exercise of their calling. It is a matter for those who deal with the question of medical education and training whether the multiplication of examination-tests does not involve the adoption of a method of mental "forcing" which results in weak growth, want of stamina, and therefore lack of self-control. A mind may be weakened without actually breaking down; and we fear many minds which do not actually give way—so to say—never recover from the maltreatment they receive *in statu pupillari*. We doubt whether the strength and integrity of the whole man are not sacrificed to the meretricious development of some of his parts. This is a very serious question. It is humiliating to think that even men of marked ability should lack the faculty of *endurance*. It is man's duty to suffer as well as to work. If the faculty of "patient waiting"

be not cultivated, no amount of brilliancy in action can compensate for this defect in the character. We think this is a consideration which needs to be pressed on the attention of our professional educators, and one which they have unaccountably neglected, with very disastrous results.

INTRA-PERITONEAL AND VESICAL INJECTIONS IN CHOLERA.

IN THE LANCET of Oct. 20th Mr. Purvis referred to a method of charging the serous cavity of the peritoneum, or the mucous cavity of the bladder, with water for the treatment of the collapse of cholera, and in last week's number Mr. J. E. Cooney published a letter on the same topic. Both writers seem, however, to have been unaware that this method of treatment was introduced by Dr. B. W. Richardson in 1854, and has been the subject of several published essays by that author. The fact was fully established by Dr. Richardson that through the peritoneal cavity the body of an animal can safely be fed with water, and that fatal symptoms from injection do not occur until as much water as is equal to a fifth of the weight of the animal is injected. When more than a fifth of water is introduced the blood is rendered unduly thin and death occurs from coma. In one case of cholera the injection of the peritoneum with water was practised, and the patient made a good recovery, but as the sufferer was not *in extremis* at the time, the case, though successful, was not considered sufficient to establish anything more than the fact that the operation was safe. In his work "On the Coagulation of the Blood" (1858), Dr. Richardson also records, at page 130, that he had modified his plan of throwing water into the drained body through the peritoneum by injecting the *bladder* with water instead of the peritoneum, having discovered that water injected into an empty and contracted bladder is absorbed; but he does not relate whether so simple a method was tried on the human subject during the collapse of cholera. Injection into the cellular tissue with water was made matter of further research by this inquirer, with the results of a less promising character than in the attempt of feeding by intra-peritoneal or vesical injection. At the time when these researches were originally published they created unusual professional interest, not only from their practical intention, but because the question, how far the peritoneal cavity could be interfered with without actual and sudden danger to life was then agitating the professional mind. Ovariotomy, as an operation, was at that period in the balance, and men who now without fear can lay the peritoneum open for an hour at a time, would have been thought rashly bold if they even punctured the sac with a hollow needle to inject into it a few ounces of pure water at blood temperature.

ELECTION OF A MEDICAL MAYOR FOR NEWCASTLE.

OUR Newcastle-on-Tyne correspondent writes:—Our City Council, on the 9th inst., elected Mr. H. W. Newton to the mayoral chair. Mr. Newton is a general practitioner, and entered the Council, where he has sat for eighteen years, at an early age, and he is still a young man. He has done good work in advancing many useful works here, such as the adoption of the Free Libraries Act and the purchase and improvement of parks for the people. Indeed, it is chiefly owing to his exertions and perseverance that a free library is an accomplished fact. Mr. Newton's father was also a practitioner of medicine in Newcastle, and occupied a seat in the Council for many years. The chair now occupied by Mr. Newton has been filled before now by some of our prominent medical men, such as Sir John Fife and Dr. Headlam, but the last medical mayor was Mr. T. L. Gregson, who, it will be remembered, entertained the British Medical Association on its visit here many years ago. Mr. Gregson, although somewhat retired now from the cares of general practice, is still amongst us, occupies his seat on the Council, and looks hale and hearty.

THE DEATH OF DR. MARION SIMS.

ON Tuesday Dr. Marion Sims died suddenly in New York. We record the fact with great regret. Dr. Sims's health has of late years been limited and precarious. But he had such an aptitude for living usefully wherever he happened to be, that when driven from his own country he could find both health and work elsewhere; and his work was of the best—personal, original, neat, and successful. We shall have to speak in more detail next week both of it and of him. Meantime, we have only to say that, though a fine workman has been removed, he will be long remembered alike by those who benefited by his skill and by those who had the privilege to know his professional qualities, and his almost rarer moral ones, amongst which must be reckoned the sweetest of dispositions and the greatest honesty of purpose.

SIR CHARLES DILKE IN THE "SLUMS."

THAT most vexatiously promising, but not particularly performing, department of the Administration, the Local Government Board, has again a President who seems anxious to make himself personally acquainted with the details of the difficult and, in many respects, disagreeable business which it is his official duty to supervise. Sir Charles Dilke has set himself to explore and inspect some of the worst tenements occupied by the metropolitan poor. This is a troublesome enterprise, and it is satisfactory to note that the President is devoting his attention more especially to that portion of the field of sanitary reform which has not yet been brought under the influence of ameliorative change, rather than to what has been already reconstructed. We trust the promise of interest which this holds out will not be unfulfilled. Mr. Dodson visited the vaccination stations, and nothing came of it. Let us hope more may come of Sir Charles Dilke's appearance in the "slums."

PHYSIOLOGY AT OXFORD.

THE agitation that has been set on foot to urge the Hebdomadal Council at Oxford University to prevent their newly elected Waynflete Professor from carrying on physiological research is one which is thoroughly unjustifiable; and we can but confess a hope that it will have no weight with the Council. Misrepresentation and ignorance can do much; but they should not be suffered to prevail; and if after creating a Chair of Physiology and sanctioning the necessary outlay for the building of a laboratory, the Professor be bound by outside restrictions, his office will be nothing but a sinecure.

SCARLET FEVER IN LEEDS.

THE present is the season for epidemic scarlet fever, and the Registrar-General's recent weekly returns show that the fatal cases of this disease have steadily increased during recent weeks in the twenty-eight large English towns dealt with in those returns. During last week 160 deaths from scarlet fever were registered in these towns, equal to an average annual rate of one per 1000 of their aggregate population. The highest annual death-rates from scarlet fever in the several towns last week were 1·9 in Sheffield, 2·1 in Preston, 2·2 in Manchester, 2·8 in Newcastle-upon-Tyne, and 4·7 in Leeds. The epidemic in the last-named town was more severe than any that has prevailed there since 1873-4;

no fewer than 75 deaths were recorded in that borough in the three weeks ending the 10th inst., making 512 since the beginning of the year. It would be interesting to know what efforts are being made to check the spread of the epidemic by hospital isolation. It is worthy of comment that in London, where the threatened epidemic appears to have been checked through the instrumentality of the metropolitan asylum hospitals, no fewer than 446 scarlet fever patients were under treatment in these hospitals on Saturday last, showing a proportion of 7·4 for each death from this cause registered in London. If a similar proportion prevailed in Leeds, 185 cases of the disease would now be under hospital treatment.

METROPOLITAN ASYLUMS BOARD.

AT the usual fortnightly meeting of the managers of the Metropolitan Asylums District on the 10th inst. it was stated that should the board be called upon to provide for a cholera epidemic, they have now 1644 beds they can use for patients, all of which can be ready at a few days' notice. The Ambulance Committee has carefully inspected all the kinds of ambulances recommended by the St. John Ambulance Association, and have come to the conclusion that the stretcher ambulance or litter will be the best for removing patients from their own beds into the ordinary carriage ambulance, and into their beds at the hospital. A letter from the Local Government Board, in which were enclosed copies of communications addressed to them, suggesting the acquisition of an alternative site to that proposed to be purchased by the managers at Rotherhithe for purposes connected with the transfer of patients, was then read, and a deputation representing most of the friendly societies of Rotherhithe, which protested against the purchase of Acorn-wharf, was received. It was ultimately unanimously agreed that the Local Government Board should be informed that as the Thames Conservancy were willing that the pier should be erected at Rotherhithe, the managers must adhere to their original proposal to purchase Acorn-wharf.

PERIMACULAR SYPHILITIC RETINITIS.

SYPHILIS may set its mark on every coat of the eye. The retina may be the seat of a recurrent form of central retinitis as mentioned by von Graefe. M. Dehenne now believes that there exists another variety of central retinitis, to which he has given the name of "perimacular." The characteristic lesion of this newly discovered kind of syphilitic retinitis appears in the likeness of a hæmorrhage into the yellow spot; but this appearance is the effect solely of contrast. The apparent redness is surrounded by an ill-defined area of greyish aspect, and is due to œdema of the retina. The malady sets in rapidly, or after a few abortive attempts. It is a rare affection, and seems to attack only one eye. The treatment should be actively antisyphilitic, but the prognosis is grave; atrophy of the optic papilla may be originated by the disease. Cases seemed to do well under the influence of subcutaneous injection of nitrate of pilocarpin (two centigrammes) used, when possible, in the morning, the patient fasting.

"VACCINATION" AGAINST YELLOW FEVER.

THE transmutation of scientific theory into actual practice seems to have reached a great height in Brazil. It will be remembered that Dr. Domingos Freire having succeeded in isolating the micro-organism which is apparently peculiar to yellow fever, and having shown that with its aid he could produce yellow fever in rabbits and guinea-pigs, "attenuated" its virulence by means of successive cultivations in gelatine. Animals inoculated with the attenuated forms exhibited febrile symptoms of a mild sort, and were subsequently proof against inoculations of any degree of virulence. Recently, it appears from the Brazilian papers, Dr. Freire has "vaccinated" five human beings with some of the material derived from the sixth generation. Of the five individuals vaccinated, two are French, one is Portuguese, one is Brazilian, and the remaining one is English. Except the Brazilian, none of them has ever had yellow fever. The symptoms resulting from the vaccination are buzzing in the ears, a slight rise of temperature at the end of twenty-four hours, dull pains in the abdomen—in short, "the symptoms which characterise the so-called yellow sickness" which have been observed during yellow fever epidemics in Martinique and elsewhere.

THE HOSPITALS ASSOCIATION.

IN another column will be found the articles of the proposed Hospitals Association as drawn up by the provisional committee. It is plain that the promoters look to the Association becoming an influential and important body, and the fact that it is possible even to put forth such a scheme shows how wide and far-reaching the hospital interest has become. At a time when the future prospects of such institutions are being discussed on all sides, and when the methods and distribution of hospital relief are likely before long to engage public attention, the formation of such a Society is opportune, and indeed almost a necessary product of the day. We think there is room for such an Association, and trust that it will soon be possessed of a large roll of members and associates, when we may look to it for the initiation of many measures of reform, which at present languish for lack of that power which combination and co-operation only can secure.

THE HUTCHINSON TESTIMONIAL.

A GENERAL meeting of the subscribers to this testimonial was held on Saturday night at the house of Sir Andrew Clark, Bart. About £450 have been collected from 310 subscribers, chiefly old or present students of the hospital which has enjoyed the advantage of Mr. Hutchinson's teaching. Of this sum £300 will be invested in debentures, and once in three years a Hutchinson prize in Clinical Surgery will be given. The remainder of the sum will be devoted to a personal testimonial to Mr. Hutchinson, to be presented on November the 29th inst., at the Holborn Restaurant. Such honours were never more fitly bestowed than in the case of Mr. Hutchinson.

HEREDITARY POLYDIPSIA.

A MOST remarkable genealogical tree has been sketched by M. Weil of Heidelberg. This tree deals with the branches of a family of ninety-one members, of which seventy are still living. Twenty-three of the individuals of this family have been the subjects of diabetes insipidus. Seventeen of these have come under the personal observation of M. Weil. There is no evidence of any other hereditary disease in the family, the units of which enjoy robust health and attain an advanced age. Except for the polyuria and excessive thirst their health is natural. The quantity of urine passed in twenty-four hours varies in different individuals from six or seven to sixteen or seventeen litres.

PROPOSED MARINE ZOOLOGICAL STATION.

A STRONG case has recently been made out in favour of applying some of the surplus funds of the British Fisheries Exhibition to the foundation of a marine zoological station; and in letters by Dr. Romanes and Professor Ray Lankester, it is pointed out that nearly all the European States, with the exception of England, have more or less well equipped marine zoological laboratories upon their coasts. France,

Dr. Romanes tells us, has no less than six, sustained by Government, besides two or three others due to private enterprise. The Austrian Government has established one at Trieste; there are others at Kiel and on the coast of Holland, whilst the chief of all, that at Naples, furnishes some of the most important biological researches of our time. Considering the long line of sea coast we possess, it is a national disgrace that England should stand alone as the Power that has made no provision for the study of marine animals. It is certain that marine stations for zoological research constitute the only means by which the zoology, anatomy, and physiology of many marine animals can be efficiently studied, and it is certain also that such investigations will exert a powerful influence on the commercial interests of the country.

CEREBRAL ELECTRISATION.

FROM experiments on monkeys and dogs, M. Couty comes to the conclusion that electrical excitation of the white matter of the brain gives rise to effects precisely like those resulting from stimulation of the cortex. Further, that the excitability of the white matter goes on increasing in proportion as one passes from the surface towards the deeper parts of the cerebral hemispheres. The tendency of recent years has been rather to the opinion that the cortex, in certain parts, is exceedingly excitable. And it would not be difficult to put another construction on the facts recorded by M. Couty.

FATAL ACCIDENT TO A SURGEON IN THE HUNTING FIELD.

A SAD occurrence took place near Morpeth on Tuesday last. Dr. James C. Logie, a respected practitioner of the above town, paid a professional visit to Longhurst Grange, where he exchanged his own horse for that of one of his friends, and joined the meet. When the fox broke cover, the horse Dr. Logie was riding went off at a great pace, and in trying to take a sharp turn it fell, and the rider was thrown with great force upon the hard road, sustaining such serious head injuries that he never recovered consciousness, but died on Wednesday morning. Dr. Logie was frequently seen by the Morpeth surgeons and by Dr. Heath of Newcastle.

MEDICAL TESTIMONIALS TO SELL.

CERTAIN chemical manufacturers of deserved celebrity, whose disinfecting preparations are *facile princeps*, and go without puffing, seem not a little surprised, as well they may be, at receiving offers from a medical man to supply them with testimonials, in laudation of their goods, for a pecuniary consideration. This gentleman for the present shall be nameless. But we will not promise permanently to suppress the name of any member of the profession who so ill understands his duty and his dignity. The more chary medical men are in granting testimonials the better, and there is one golden rule at least to be observed, that where they feel moved to publish testimonials of important preparations, they do so without commercial solicitations and rewards.

ROYAL BOTANIC GARDEN, CALCUTTA.

THE past year has seen the completion of most of the improvements in the garden grounds which were sketched out by Dr. King, the superintendent, for the approval and sanction of Government, in the year 1874. The garden has been practically remade. The whole extent of the grounds has been raised in level, the necessary soil having been obtained by cutting out large sheets of ornamental water. These artificial lakes have been connected with each other by underground pipes, and a steam-pump has been supplied, by which the water in the whole system can be kept at a high level by means of water pumped up from the river. Dr. King has given his attention to the utilisation of various fibrous plants. Mention is made, in terms of praise, of a patent machine for cleaning Rheea and other fibres, invented by M. Berthet, of Rouen. It is believed that plantains may be made to yield a good fibrous raw material for paper, and as plantain stems and leaves are at present absolutely waste, the utilisation would be a source of income to the country.

ONE of the members of a deputation representing the engine- and train-men on the Taff Vale Railway, which waited on the directors of the Company at their fortnightly meeting on the 7th inst. in reference to a request for shortened hours and the payment of overtime, stated that on the Thursday of the preceding week he commenced work at 3.30 A.M., and did not go off duty until 2.30 on the following morning. He resumed work at 11.30 A.M. on Friday, and ceased at 9.20 on Saturday morning, thus working for 23 and 22 hours on Thursday and Friday respectively; his total period of service during the week was 89½ hours. This case is stated not to be an exception to the general rule, all the engine-men and train-men having to devote about the same amount of time to the service of the Company. The chairman said that the directors were anxious to reduce the hours of labour, but gave no distinct promise as to when the desired change would be effected. The occurrence of a serious accident on their line would probably quicken the perception of the directors as to the necessity of a speedy alteration of their policy in this matter.

WE are informed that the late Mr. J. Shuter, whose premature death from a narcotic, taken by mistake for a saline dose, has excited so much regret, was insured against accidents for £1000 in the Railway Passengers' Assurance Company. It is somewhat remarkable that this is the third claim on the Company for fatal accidents to medical men in the metropolitan district within three months. The two previous ones were Dr. Boyd, burned in his house at Southall, and Dr. F. W. Iles, inoculated with diphtheritic poison.

WE are glad to note the safe return of Sir William Mac Cormac from the United States. We gather from the American press, both lay and medical, that his visit has been a very agreeable one on both sides. Almost his last act before his departure was, on the invitation of Professor Dennis, to deliver a very interesting lecture on "Gunshot Wounds," in the Medical College of the Bellevue Hospital, which is fully reported in the *Medical Record* of New York for the 3rd of November.

IN the current number of the *Archivio di Patalogia Infantile*, published at Naples, under the direction of Professor L. Somma, assisted by a talented editorial staff, appears the concluding part of an original paper commenced in the July number by Dr. W. H. Barlow of Manchester, "Sulla Paralisi Cerebrale (o Spastica) dei Bambini," very admirably rendered in Italian by Dr. V. Meyer. The communication was written, we understand, at the expressed desire of the learned professor.

A PREPARATORY School of Medicine and of Natural Science has just been established in connexion with the West London Hospital at Hammersmith. One of its chief objects is to give intending medical students an early insight into medical work, so that they may, without needless loss of time or money, be able to judge whether or not they have chosen the right profession.

A ROYAL SOCIETY Medal has been presented to Professor J. S. Burdon-Sanderson, M.D., F.R.S., for the eminent services which he has rendered to physiology and pathology, especially for his investigation of the relations of micro-organisms to disease, and for his researches on the electric phenomena of plants. The Copley Medal has been awarded to Sir Wm. Thomson, F.R.S. for his discovery of the law of the universal dissipation of energy, and his researches in physics.

AN edict of a sufficiently stringent character has been issued in the Prussian district of Königsberg, relating to the keeping and sale of poisonous substances. If the people of Königsberg are not in future exempt from cases of accidental and criminal poisoning, it will not be from want of legislation.

DR. RUDOLPH MÜLLER of Dresden has sent us a pamphlet which is remarkable for the extended list of references it gives of the literature of cremation. The history of the question in most of its aspects during the past century will be found, chapter and verse. We have seldom seen so concentrated a mass of facts and opinions.

A MONTHLY index to the copyright registers at Stationers' Hall is now being issued in *The Bookseller*, and will doubtless be a great assistance to authors in enabling them to avoid the use of titles which have already been appropriated.

DR. ACLAND, F.R.S., presided a few days since at a conference in the Sheldonian Theatre, Oxford, to discuss the question of intemperance and its bearing upon national health.

A PROJECT is on foot to erect a statue to the illustrious physician Bouillaud, of Angoulême. A large sum has already been subscribed for the purpose.

HEALTH OF THE ARMY.

No. II.

THE white troops in the West Indies suffered severely in 1881 from an outbreak of yellow fever in Barbadoes. The strength of the troops throughout the command was 897, among whom the admissions were in the proportion of 1059, the deaths of 61·31, the invalids of 33·45, and the constantly sick of 40·42 per 1000; all except the mean sick much above the average of the ten preceding years. Unfortunately no statement is given of the strength, admissions, and deaths at the different islands. The great mortality was entirely due to fevers, which were the cause of 53 out of 54 deaths in the command; two occurred from enteric fever, one in Jamaica and the other in Barbadoes; 10 from remittent fever, 7 at Trinidad and 3 at Barbadoes; and 41 from yellow fever, all at Barbadoes. It thus appears that 45 deaths from fevers took place in that island. The strength of the garrison when yellow fever broke out was 506, so that assuming that to have been the average force, the deaths by all forms of fever were in the annual ratio of 88·93 per 1000 of the strength. Yellow fever had been hanging about the island for some time, and in June appeared among the civil population of Bridgetown. In the end of July it spread to the troops, who between the 6th and 9th of August were moved out of barracks and encamped on Gun Hill, six miles distant. This seemed for the time to have checked the epidemic, but on September 21st a case occurred there in the 1st Royal Lancaster Regiment, and the disease continued to spread in it. On Oct. 26th the troops were embarked on H.M.S. *Orontes* for England. During the voyage home five men and one woman died on board of yellow fever. The cause of the epidemic is very doubtful. Surgeon Major Hoile attributes it, first, to local and general insanitary conditions, and, secondly, to climatic influence, intense heat, and a moist steamy state of the atmosphere. Of the men 23 died at St. Ann's and 18 at Gun Hill. Five officers died at each of these stations. Five women and 5 children died at St. Ann's, but no women died at Gun Hill, and only one child, after the departure of the troops for England. The report does not give any detailed information respecting the health of the troops in Jamaica during the year.

The average strength of the black troops in the West Indies was 981. The admissions into hospital were 1170, the deaths 16·31, the invalids 62·18, and constantly sick 56·98 per 1000. The admissions were considerably above and the deaths 2·56 under the average. The most prevalent diseases were paroxysmal fevers, and next to them diseases of the cutaneous and digestive systems and syphilis. Tubercular diseases, as usual, were the greatest cause of mortality, and gave rise to one-fourth of all the deaths. The black troops entirely escaped yellow fever at Barbadoes, and also in Demerara, where it attacked the civil population.

On the West Coast of Africa the admissions into hospital from a force of 708 were 1655, the deaths 19·77, the invaliding 36·72, and the mean sick 67·06 per 1000 of strength. Both the admissions and deaths were under, but the invaliding and mean sick above, the average. The great cause of sickness was paroxysmal fevers, but syphilis and diseases of the digestive system were also very prevalent, and the mortality by the latter was very high, amounting to more than one-third of the whole. The deaths from phthisis were much below the average.

The average strength of the troops at the Cape and St. Helena in 1881 was 10,636. The admissions from them into hospital were 757, the deaths 36·95, the invalids 74·27, and the constantly sick 50·18 per 1000. These ratios were much lower than in the preceding year, and, except the invaliding, under the average of the ten years. The high death-rate was caused by the number killed in action or who died of their wounds, which amounted to 25·20 per 1000; the mortality from all other causes, even under the unfavourable circumstances in which the troops were placed, was only 11·75 per 1000. The present report does not enter into details respecting the losses in the field, including the affair at Majuba Hill, but refers for them to the report by the late Surgeon-General Holloway, C.B., which was published in last year's departmental volume.[1] The most prevalent diseases were those of the digestive system, and the most fatal were fevers. The latter included 244 cases of enteric fever with 39 deaths, being respectively in the ratio of 22·9 and 3·67 per 1000. The enteric fever was believed to have been caused by a polluted water-supply. Owing to the difficulty of obtaining fresh vegetables a number of cases of scurvy occurred at Bennett's Drift and Ladysmith. The principal medical officer states that crushed maize (mealie meal) was found very beneficial in these cases. The deaths from injuries not received in action amounted to 28, or 2·64 per 1000, and of these 12 were by drowning.

The Mauritius was very unhealthy during the year, the admissions from a force of 360 having amounted to 2181 per 1000; the deaths, however, were only 13·89; the invaliding was 75·0, and the mean sick 95·66 per 1000 of strength. The chief cause of this high ratio of sickness was the prevalence of paroxysmal fevers, which gave rise to nearly half the admissions. Diseases of the digestive system were also extremely prevalent, and so were syphilis and gonorrhœa. The senior medical officer says: "The cause which has seriously affected the health of the troops is that the barracks of most of them and the principal hospital are in the town of Port Louis. There is no divergence of opinion on this point, or that no minor steps or efforts will avail to diminish the great amount of fevers of a malarial type as long as the men continue in Port Louis, while there can be no doubt that a most marked difference in health would result if they were located in the uplands." Surely at a station where the admissions into hospital in the course of the year exceed double the force, and where one-tenth of the men are constantly on the sick list, some decided measure is necessary to endeavour to improve the efficiency of the troops.

In Ceylon in a force of 965 European troops the admissions were 1386, the deaths 16·58, the invaliding 40·41, and the constantly sick 73·69 per 1000 of the strength. These ratios are all considerably above the average, but especially the

[1] Vide THE LANCET, Sept. 2nd, 1882, p. 354.

admissions and mean sick. The chief causes of sickness were syphilis and gonorrhœa, which together furnished 339 cases per 1000 of the strength, or about one-fourth of all the admissions, while diseases of the digestive system accounted for 277 per 1000. Fevers were not very prevalent, but caused a mortality of 5·18 per 1000, or nearly one-third of the deaths. The water-supply at Trincomalee is far from what it ought to be, and the vicinity of the barracks at Colombo seems greatly to need some sanitary improvement.

The white troops serving in China and the Straits Settlements averaged 1795 non-commissioned officers and men, among whom the admissions were 1079, the deaths 9·47, the invaliding 54·03, and the mean sick 56·55 per 1000. The sickness and mortality at Hong Kong and in the Straits Settlements differ very slightly. Diseases of the digestive system have given rise to the highest proportion of admissions—chiefly cases of hepatitis and of simple enlargement of the liver. Fevers were the cause of 164 admissions per 1000 of strength, but were not attended with a high rate of mortality. The three deaths in this class were all by enteric fever, two of them having occurred at Penang and one at Singapore. There was no outbreak of epidemic disease at any station in the command.

The average strength of the European army in India in 1881 was 58,588; the admissions into hospital were 1572, the deaths 17·19, the invaliding 38·10, and the constantly sick 66·14 per 1000. With the exception of the invaliding these ratios were all lower than in 1880, but the admissions and constantly sick were above the average of the preceding ten years.

In Bengal an average force of 38,213 men gave 1649 admissions, 19·21 deaths, 37·21 invalids, and 68·54 constantly sick per 1000 of strength, all lower than in the preceding year, except the invaliding, which shows an increase of 11·70 per 1000. The admissions and mean sick were above, but the deaths and invaliding under, the average of the last ten years. The reduction in the admissions compared with those of 1880 was chiefly in paroxysmal fevers, diseases of the digestive system, and gonorrhœa, and in the deaths by continued and paroxysmal fevers, cholera, and diseases of the nervous and digestive systems. In the different military divisions the admissions ranged from 1266 per 1000 in the Rohilcund to 2460 in the Peshawar division, and the deaths from 7·92 in the Rohilcund to 44·05 in the Lahore. Although the admissions in the Peshawar division were, as usual, very high, the deaths were exceptionally low, having been only 13·49 per 1000. The Lahore division furnished a very high ratio of admissions, amounting to 2086 per 1000. The excess in the Peshawar and Lahore divisions was due to the great prevalence of fevers, both paroxysmal and continued, and of diseases of the digestive system. Omitting smaller stations at which the force was under 100 strong, the station at which the highest proportion of admissions took place was Lahore, where it amounted to 3300 per 1000 of strength, and of deaths at Meean Meer and Fort Lahore, where 99 occurred in a strength of 1126, being in the ratio of 87·92 per 1000. This excessive mortality was chiefly due to cholera, which broke out as an epidemic in the beginning of June, and was the cause of 71 deaths in 94 cases. The only other station where it prevailed to a marked extent was Lucknow, where in a force of 2393 there occurred 22 cases and 17 deaths. Throughout the whole Bengal command there were only 159 admissions and 116 deaths by that disease. Enteric fever prevailed generally throughout the command, and occasioned 249 admissions, with 107 deaths, being in the ratio of 6·52 and 2·80 per 1000 of mean strength, both lower than in the preceding year. The stations at which it was most prevalent were Lucknow, Rawal Pindi, Bareilly, Dum-Dum, and Meean Meer. With regard to its prevalence at Dum-Dum, it is stated by the Principal Medical Officer that "no draft joined the regiment in the year, and as it was in its sixth year of Indian service the occurrence of eleven cases of enteric fever is to be regarded as exceptional in a corps of men whose susceptibility to the disease might be supposed to be exhausted." It may be noted that three of the cases terminated fatally.

During the year an important change was effected in the medical service by the introduction of the station hospital system instead of the regimental. The Principal Medical Officer says: "In July the constitution of the hospitals in the command was altered from a regimental to that of a general basis, the system being brought into use successively as arrangements could be made, but at the end of the year all the hospitals were conducted on the general plan. Preceding this improvement the hospital servants were formed into a corps of enlisted and trained men, with much advantage in the way of efficiency, and at the same time a reduction of one-third of their number. All the medical officers who notice the subject write approvingly of these alterations in the arrangements for the treatment of the sick."

In the Madras command in a force of 10,389, the admissions amounted to 1154, the deaths to 11·65, the invalids to 27·53, and the constantly sick to 57·96 per 1000, being a decrease in the proportions admitted and constantly sick, but a slight increase in the deaths and invalids compared with the preceding year. All these ratios, except the constantly sick, were considerably under the average of the last ten years. The decrease in the admissions and mean sick compared with 1880 has been chiefly in fevers, syphilis, and gonorrhœa, and the increased death-rate in cholera and diseases of the digestive system. The admissions into hospital in the different military circles ranged between 816 in the Southern and Malabar and Canara Districts, and 1421 in the Mysore division and Ceded districts, and the mortality between 5·11 in the Southern &c. districts, and 26·79 in the Nagpore Force and Central India regiments. The highest ratio of admissions at any station was 2171 at Bellary, the excess being in a great degree due to the presence of two regiments which had returned from service in Afghanistan, and of deaths at Kamptee, where it reached 28·30 owing to an outbreak of cholera in the third quarter; of 24 deaths at that station 13 were caused by it, and there were also four deaths by drowning while the men were in cholera camp. Bellary, Rangoon, and Port Blair are the only stations at which the admissions, and, omitting the depôts, Kamptee the only one at which the deaths were above the average of the preceding ten years. There were only nine cases of enteric fever throughout the command, but of these 5 proved fatal. Cholera furnished 35 cases and 17 deaths; of these 25 cases and 13 deaths occurred, as already stated, at Kamptee, 7 cases and 4 deaths at Thayetmyo in British Burmah, and 3 which recovered at Secunderabad.

The average strength of the European troops in the Bombay command was 9936; the admissions into hospital were in the ratio of 1718, the deaths of 15·22, the invalids of 52·47, and the constantly sick of 67·38 per 1000—all, except the invalids, considerably under the results of the preceding year. The reduction in the admissions took place chiefly in paroxysmal fevers and diseases of the digestive system, and in the deaths by continued and paroxysmal fevers, and diseases of the respiratory and digestive systems. The admissions ranged between 1304 in the Presidency and 2376 per 1000 in the Scind division, and the deaths between 10·92 in the Presidency and 14·91 in the Poona division. The station which furnished the highest ratio of cases was Baroda, where they amounted to 4035 per 1000, and of deaths Ahmednugger, where the ratio was 27·09 per 1000. Although considerably lower than in the two preceding years, the admissions by paroxysmal fevers at Baroda were much in excess of those at any other station. Fevers and diseases of the digestive system were the causes of the high rate of mortality in the Poona division, and especially at Ahmednugger. Enteric fever gave rise to 34 admissions and 19 deaths in the command. Of these, 13 with 7 deaths were at Poona, 6 with 4 deaths at Mhow, and 6 with 3 deaths at Nusseerabad. The Principal Medical Officer says: "As regards the means by which enteric fever is propagated among the troops in this country, there has been no addition made to our knowledge since the date of last report." There was a marked absence of cholera among the troops, only 6 cases, of which 3 proved fatal, having occurred during the year.

Nothing occurred among the troops on board ship which seems to call for special remark. The sanitary condition of all the transports and troopships is stated to have been satisfactory.

CHARING-CROSS HOSPITAL.—At the usual monthly meeting of the Council of Charing-cross Hospital, held on the 7th inst., the following resolution was passed:—"That this Council is of opinion that it is expedient that the relations existing between the hospital and St. John's House be determined at the earliest possible period, and that a notice be given by the treasurer for the determination thereof on the 24th day of June next." There was an unusually large attendance of members.

THE ABERDEEN INTRODUCTORIES.

THE session was opened in the various classes of Aberdeen University on the 24th ult., with the exception of the medical jurisprudence class, which met a few days later, and in several instances introductory lectures, briefly summarised below, were delivered. Others of the Professors commenced work without formality, while Professor Alex. Ogston took the opportunity of condemning these addresses as without a word or sentiment worth uttering, so far as his experience or reading led him. He said, "the man who would write the first good introductory address had yet to be discovered."

Professor STRUTHERS, urging his students to hard work, suggested that the words *Liberté, Egalité, Fraternité* would form a fitting motto for a medical school. Here, as in Germany, he found the last-named qualities in existence, but condemned the too abundant liberty left to the German student while supposed to be under guidance and restraint. Looking upon Aberdeen as above all a working school, he regarded the supervision and the constant contact of the teacher of immense advantage. The student should not only work, but look upon this as one of his privileges. While giving due place to good text-books, the higher value of objective teaching was recognised; and it was held as essential that teaching and examination should stand related to each other. Professor Struthers went on to say: "In regard to the advancement and teaching of the sciences, you may have seen the view recently expressed, in a somewhat offensive form, that certain persons ought to be endowed by the State for the purpose purely of research, and teaching relegated to another class of persons. ..... Nowhere in the world is more research done than in the German universities, and there by those who combine that with the duty of teaching. The Scottish and other universities likewise furnish a reply. The proposal to hand over the great body of students of medicine and of science to a body of grinders is one that could have proceeded only from within one of those medical schools which have arisen and can only exist because England has been less fortunate than Scotland and the rest of Europe in her university system in relation to the sciences and to medicine." The Professor concluded by showing how well fitted the Aberdeen school now is for good work in every department.

Professor HAMILTON spoke of the "Progress and Influence of Pathology during the present century," and showed what remarkable strides had been taken by pathology and physiology working hand in hand. A high eulogy was passed upon John Hunter and his work, which gave the death-blow to empiricism. Hunter, like Harvey, was an innovator, and the secret of his success lay in his believing in the capabilities of his own senses. Hard work, honesty of purpose, accurate observation, and clearness of intellect may be said to sum up the landmarks that he had in view. The importance of pathological anatomy, however, seemed only in the beginning of this century to have possessed the medical world in England, France, and Germany. France was first in the field of systematic study with an army of observers, and soon afterwards Germany stepped into the field. Here, indeed, was established in great part an original pathological anatomy, prevailing till now. Slower progress was made in England. Bichat's books, "General Anatomy," and on "Life and Death," did much, by his division of the body into tissues, and by his great physiological principles; and the use of the microscope further aided pathological study. Later, a band of German workers arose, overshadowing all former schools. Rokitansky of Vienna, by his zeal in forming a splendid museum, and through the influence of his work on "Pathological Anatomy," long stood in the front rank. Next, referring to the illustrious master Virchow, Professor Hamilton showed that his influence has penetrated almost every subject in the whole range of pathological anatomy, and that his school is now dominant. Amongst his assistants have been Recklinghausen and Cohnheim. Other works referred to as of supreme value were Laennec's, Andral's, and Cruveilhier's; and, lastly, British authorities were briefly considered. Dr. Hamilton concluded by urging the claims of his own and the physiological department for subscriptions or legacies to allow of much-needed extension.

Professor STIRLING'S subject was "The Hereditary Transmission of Characteristics." He first referred to the general truth that like produces like, but went on to show that slight variations were common both in the animal and vegetable world. A certain permanent character giving the specific type exists, but innumerable modifications occur. These are found in every animate object. Many illustrations were given, showing the heredity of peculiarities as well as of type. If we examined system by system, we should find that as far as structural peculiarities are concerned, they are markedly hereditary—especially in the osseous system. Peculiarities, such as the occurrence of bristles in the eyebrows, corpulence, good teeth, high-arched palate, and others were shown to be in many cases hereditary. It is important to know whether the configuration and other characters of the nervous system are transmitted, and little doubt need exist on this point. Structural heredity is thus a certainty; but the further question arises as to the transmission of function. We find it so as regards motor power, as is seen in families of athletes; as regards longevity, productiveness, and acuteness of the various senses, more especially of sight. The imaginative faculties Dr. Stirling showed to be hereditary, from Galton's observations on great musical families and names known for generations as painters. With regard to intellect—abstract thought, judgment, generalisation, &c.,—it is of supreme importance to know whether this is hereditary. At present evidence is on the side of heredity, but Galton specially remarks the necessity of able mothers in the production of men of science. The Darwinian and Spencerian views account—in the one case by "spontaneous variations," in the other by "functional increment"—for additional brain power in the individual; but it remains a difficulty to account for the occurrence of a Shakespeare or a Goethe, though it is certain these do not arise among Australian black fellows or Digger Indians. Dr. Stirling gave many further instances of hereditary peculiarities, and recommended the study of Lucas', Ribot's, Galton's, and Darwin's works for a comprehensive view of a most interesting question.

Professor HAY was introduced to his class on Monday by the principal of the University, who passed a high eulogium upon ex-Professor Ogston, and stated that such testimonials as had been presented by Dr. Hay he had hardly ever seen. Professor Hay, after a few remarks on the study of medical jurisprudence, passed to the consideration of "toxicology." Looking upon toxicology as the essential science in medical jurisprudence, other divisions of the subject being a portion of different studies, Dr. Hay went on to give a succinct and interesting account of the history of poisons and poisoning. From the earliest appearance of man he seems to have been acquainted with the art of poisoning. He used against others the forces which nature seemed to employ against himself. The poison of serpents was amongst the first to impress him; and Nicander, the earliest writer on the subject, devotes half his work to its consideration. Aconite, hemlock, poppy, and henbane are also mentioned by this writer as early in use, and others, such as cantharides, the flesh of certain fishes, and *the fresh blood of the bullock*, are also given. White lead and litharge are the only universal poisons mentioned by Nicander. By-and-by we come upon the compounds of zinc, copper, arsenic, and antimony in use in poisons. Dr. Hay then traced the history of poisons among savages, and referred to some of the uses to which these were put in more civilised communities. Trial by ordeal, in which poison was used in the interest of retributive justice, introduced among other substances the Calabar bean; and other agents were used in the punishment of crime. Instances were given in which poison had been employed by suicides in early times, when this form of crime seems to have been rather fashionable among the great. The use of poison against others is, of course, that which now chiefly occupies us, and it is singular that this appears first amongst civilised communities, especially in the East. Dr. Hay afterwards showed how common the crime became among the Romans; and it remains till this day in Italy a frequent cause of death. In France, also, poisoning for State as well as private reasons was very popular. A hasty view of the more celebrated poisoning cases in England was then taken; and Dr. Hay concluded by a few admirable sentences, in which he showed the indebtedness of science to his distinguished predecessor, Professor Ogston. He stated that Dr. Ogston's work had "done for Scotland what Caspar's great work did for Germany, and Taylor for England."

ROYAL COMMISSION ON PRISONS IN IRELAND.

IT will be within the recollection of our readers that in 1877 an Act of Parliament was passed transferring the local prisons in Ireland from the jurisdiction of the various grand juries and vesting them in the hands of the General Prisons Board then established. Up to the date of that Act no two prisons were carried on in the same manner; various abuses naturally crept into the administration; and there was no central authority which could check or advise, except through the inefficient means of representations by the inspectors. Following as closely as circumstances would permit the lines laid down in the Prisons (England) Act, a Central Board was established for Ireland. It was felt at the time to be a grave omission not to have a medical member on the Board. It is manifest that co-equal with the safe custody of prisoners is the importance of taking precautions that a healthy standard shall be maintained, and it is obvious that a medical man alone is competent to advise a board in this matter. In the Local Government and Lunacy Boards this has fortunately been conceded, and we are at a loss to understand why no such provision has been made to assist the executive in carrying out the details of an essentially humane act, such as the one under discussion. In the 53rd section special clauses were embodied, having reference to the duties of medical officers in charge; certain duties were there defined, altering those hitherto performed, and these have been since further modified and added to, with the consent of the Privy Council, till the list comprises every detail in the treatment of a prisoner, from his entrance into the gaol to his exit, requiring constant care and attention on the part of the surgeons. Serious complaints have been made from time to time as to the mode of administration of this Act. Last year very serious disaffection pervaded all ranks, and the Government very wisely determined that a Royal Commission should issue to inquire into all matters connected with the administration. Sir Richard Cross was nominated chairman, with Major McHardy, R.E., as secretary. The other members are Mr. Dickson, M.P., the Hon. W. Broderick, M.P., Professor Siegerson, Dr. Robert McDonnell, Mr. Murphy, and Mr. Woodhouse. For three weeks the Commissioners have been taking evidence in Dublin and visiting the principal prisons in Ireland. The medical officers have been examined, besides various other members of the service. The evidence offered by the surgeons may be roughly divided into two classes—viz., that referring to the health of the prisoners, dietary, hygiene, &c., and what they conceive are the disadvantages they labour under personally. Under the first heading they have recommended that greater latitude should be accorded to them in the manner of ordering extras for such prisoners as may be failing in weight or lapsing into bad health from want of nourishment or the necessary stringency of prison life. By a minute of the Board medical officers are compelled to visit daily and consider as sick any prisoners on extra diet. As well might the surgeon on a ship be compelled to visit daily every sailor who gets lime juice or vegetables as a prophylactic against scurvy. The six ounces of extra bread or half pint of milk given to a prisoner is as necessary for the due maintenance of health as lime-juice is as an anti-scorbutic; but in order to check medical officers from wasteful extravagance, the Board consider it necessary to penalise them thus in the discharge of their duty. In the case of juvenile offenders and nursing mothers this extra diet is essential, and yet the prisoners may be in excellent health. The Board have also refused to supply instruments, such as trocars and cannulas, gum lancets, fracture splints, &c. Far more serious than the foregoing is the absolute want of trained hospital warders for the prison infirmaries. The surgeons have no one on whom they can rely in cases of illness for properly attending to the sick. Even our poorhouses have skilled attendants; and the medical officers of prisons ought, at least, to have similar help. A point which they strongly urged before the Commissioners was the danger consequent on permitting the families of warders to reside within the precincts of the prison. In England some of the gaols have warders' houses built at short distances from the prison, but in Ireland, where there is room, they permit the wives and families to reside in the building. The danger of infection spreading under these circumstances is very great; and the Commissioners would be unwise, we think, to reject this timely note of warning. The medical officers examined may claim the unanimous support of the profession in their endeavour to remedy abuses, a few of which we have mentioned; but until the Prisons Board is furnished with a medical member, or an efficient medical inspector, we are of opinion the sanitary and hygienic details of the department cannot be satisfactorily secured.

THE VIENNA SCHOOL.

NEXT year will be completed the centenary of the great General Hospital of Vienna, which has for so long been the pride and envy of the world, and around which the memory of so many famous men lingers. In anticipation of this event a most interesting work has been written by Dr. Puschmann,[1] the Professor of the History of Medicine at the Vienna University, in which he reviews the whole progress of medical education at Vienna, from the time (1744) when, at the instance of Maria Theresa, the illustrious Van Swieten, friend and pupil of Boerhaave, left his native place, Leyden, to establish himself in the Austrian capital. An ample and striking sketch is given of Van Swieten's work in Vienna, and of his reorganisation of the medical faculty there. Almost as remarkable was De Haen, also from Leyden, who aided in the new work, and who seems to have been a physician greatly in advance of his time. There are memoirs of each of the professors in the various subjects taught at the university from Van Swieten's time onwards; the history of Auenbrugger's discovery and its neglect by his contemporaries; the labours of Störek in materia medica, of Jacquin in botany, and of Maximilian Stoll in medicine, especially his advocacy of inoculation for small-pox. Such were some of the men who formed the "Old Vienna School." Under the successor of Maria Theresa, the Kaiser Joseph II., a great impulse was given to medical education as well as to all philanthropic efforts for the sick and disabled. Within his comparatively short reign he inaugurated endless reforms and established numberless institutions—all towards the same humane end. Amongst these institutions was the Allgemeine Krankenhaus, which was planned in 1783 and opened in 1784. Another institution was the Josef-Academy, which was furnished with a staff of professors in the medical and surgical sciences, but which eventually languished, since it could not compete with the University. The second part of Herr Puschmann's book deals solely with this period of awakening—"die Josefinum," as he terms it; but his third part is entitled the Reaction, which did not imply any falling off in the standard of education or in the celebrity of the professors, amongst whom we may name Frank and Prochaska as being the most notable. In 1810 a new system of studies was promulgated, proceeding on a far wider basis than attempted by Joseph II., and in the next ten or twenty years the advance of scientific medicine was seen in the foundation of societies and of journals, and in much literary activity. Now opens the third and greatest period of the medical history of Vienna, and under the title of the "New Vienna Medical School," Dr. Puschmann tells us of the labours of such men as Skoda, Rokitansky, Schuh, F. Hebra, Hyrtl, Sigmund, Ludwig, Türck, Brucke, and Oppolzer; of the rise and progress of histology under Wedl and Stricker, and of surgery under Pitha and Billroth. These and many others who have worked or are working in the cause of medical science form a connected series of men to whom not Vienna alone, but the whole world, owes an infinite debt. The book in which this history is related is one which is deserving of a less modest setting than that in which it appears, and we would suggest to the publisher the propriety of issuing an edition which should contain the portraits of all the more illustrious men whose life-work is so faithfully delineated in the text.

[1] Die Medicin in Wien während der Letzten 100 Jahre. Wien: M. Perles.

THE annual meeting of the subscribers to the Salop County Infirmary was held at Shrewsbury on the 8th inst., when the annual sermon was preached at St. Chad's Church. A collection was made, the sum of £300 being realised.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5625 births and 3547 deaths were registered during the week ending the 10th inst. The annual death-rate in these towns, which had been but 19·6, 22·2, and 22·1 in the three preceding weeks, rose to 21·5 last week. The lowest rates in these towns last week were 13·4 in Derby, 13·9 in Portsmouth, 14·0 in Norwich, and 15·3 in Plymouth. The rates ranged upwards in the other towns to 25·4 in Preston, 27·8 in Manchester, 28·1 in Leeds, and 31·4 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 457 and 415 in the two preceding weeks, rose again to 458 last week; they included 160 from scarlet fever, 76 from "fever" (principally enteric), 70 from measles, 65 from diarrhœa, 49 from whooping-cough, 34 from diphtheria, and 4 from small-pox. The lowest death-rate from these diseases occurred last week in Bristol, whereas they caused the highest death-rates in Newcastle-upon-Tyne and Leeds. Scarlet fever caused the largest proportional number of deaths in Leeds, Newcastle-upon-Tyne, Manchester, and Preston; measles in Salford and Plymouth; and "fever" in Preston and Portsmouth. The 34 deaths from diphtheria in the twenty-eight towns included 22 in London, and 2 each in Plymouth, Leeds, Hull, and Newcastle-upon-Tyne. Small-pox caused 2 deaths in London, 1 in Birmingham, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals, which had been 47 and 41 on the two preceding Saturdays, fell to 34 at the end of last week; 5 new cases were admitted to these hospitals during the week, against but 1 in the previous week. The deaths referred to diseases of the respiratory organs in London, which had increased in the six preceding weeks from 163 to 316, further rose last week to 365, but were 94 below the corrected weekly average. The causes of 101, or 2·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Plymouth, Derby, and Bradford. The proportions of uncertified deaths were largest in Salford, Oldham, Halifax, and Cardiff.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·4 and 21·0 per 1000 in the two previous weeks, was 21·1 in the week ending the 10th inst.; this rate was 0·4 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns ranged from 11·2 and 17·0 in Leith and Perth, to 23·2 and 23·3 in Glasgow and Greenock. The deaths in the eight towns included 82 which were referred to the principal zymotic diseases, against 91 and 72 in the two preceding weeks; 19 resulted from diphtheria, 17 from diarrhœa, 15 from whooping-cough, 14 from scarlet fever, 9 from "fever," 8 from measles, and not one from small-pox. These 82 deaths were equal to an annual rate of 3·5 per 1000, which exceeded by 0·7 the mean rate from the same diseases in the large English towns. The rates from these diseases last week in the Scotch towns ranged from 0·8 in Leith, to 4·3 and 4·6 in Glasgow and Edinburgh. The deaths referred to diphtheria, which had been 23 and 11 in the two previous weeks, rose again to 19 last week, and included 8 in Glasgow and 7 in Edinburgh. The 17 deaths attributed to diarrhœal diseases also showed an increase upon the number in the previous week; 6 occurred in Edinburgh and 5 in Glasgow. No fewer than 14 of the 15 deaths from whooping-cough, and 10 of the 14 from scarlet fever, were returned in Glasgow. The 9 fatal cases of "fever" showed a decline of 10 from the number in the previous week; they included 4 in Glasgow and 2 in Aberdeen. Four of the 8 deaths from measles occurred in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns showed a decline of 31 from the number in the previous week, and were 39 fewer than those returned in the corresponding week of last year. The causes of 83, or nearly 17 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 23·3, 24·9, and 28·2 per 1000 in the three preceding weeks, declined again to 25·8 last week. The death-rate in the city during the first six weeks of the current quarter averaged 25·2 per 1000, against 18·8 in London and 18·2 in Edinburgh. The 173 deaths in Dublin last week showed a decline of 16 from the number in the previous week; they included 9 which were referred to scarlet fever, 5 to diarrhœa, 2 to "fever," 2 to whooping-cough, 1 to measles, and not one either to small-pox or diphtheria. Thus 19 deaths resulted from these principal zymotic diseases, against 19 and 26 in the two previous weeks; they were equal to an annual rate of 2·8 per 1000, while the rate from the same diseases was equal to 2·7 in London and 4·6 in Edinburgh. The deaths referred to scarlet fever in Dublin, which had been 19, 7, and 14 in the three previous weeks, declined again to 9 last week. The 5 deaths from diarrhœa showed an increase of 2 upon the number in the previous weeks; whereas the deaths from "fever" showed a decline of 5, and were fewer than those returned in any recent week. The causes of 32, or more than 18 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

PICRIC ACID AS A URINARY TEST WHEN THE PATIENT IS TAKING QUININE.

To the Editor of THE LANCET.

SIR,—With reference to Dr. J. Frank Nicholson's letter on the above subject, it is a well-known fact that picric acid precipitates from solution, not only quinine, but all the vegetable alkaloids, such as morphia, atropine, &c.; the precipitate in every case, however, being readily and completely soluble by heat, and thus contrasting with an albuminous precipitate. The precipitate which picric acid gives with the vegetable alkaloids is also dissolved by a few drops of nitric acid; while to dissolve an albuminous precipitate a large excess of nitric acid is required. So far as we at present know albumen is the only substance commonly present in the urine which gives with picric acid a precipitate *insoluble when heated.*

When I find that a sample of urine gives a precipitate with picric acid, I invariably warm the specimen. In about 99 per cent. the precipitate is made more dense by heat, and is unquestionably albuminous. In perhaps 1 per cent. the turbidity which occurs *immediately after the addition of the test* is due to urates, which under the microscope appear partly granular and partly crystalline, and which are redissolved by heat.

I have not hitherto tested the urine of a patient taking quinine and eliminating it in sufficient quantity to give a precipitate with picric acid. The urine of those who are taking the ordinary medicinal dose of a grain two or three times a day is not rendered opalescent by the acid.

I am, Sir, yours obediently,

Savile-row, Nov. 10th, 1883. GEORGE JOHNSON.

To the Editor of THE LANCET.

SIR,—Dr. Nicholson's interesting letter, which records the fact that picric acid produces an opacity in albumen-free urine containing quinine, reminds me of some observations lately made which lead me to the same conclusion. But of the albumen tests recently discussed in your columns picric acid is not the only one which will unfortunately precipitate alkaloids in the urine. For this property belongs also to the potassio-mercuric iodide test, as pointed out by M. Tauret of Paris in 1877, and just now conclusively confirmed by my own clinical observation. Both the picric and the mercuric precipitates of the alkaloids clear up with heat, or after the addition of alcohol. But even in the cold the opacity induced by the mercuric test can be easily distinguished from the albuminous one by its retaining for some time—e.g., more than a quarter of an hour—a uniform turbidity, while the

latter breaks up into flocculi much within a minute. The tungstate and the ferrocyanic tests do not precipitate alkaloids in the urine. I am, Sir, yours truly,

Harrogate, Nov. 12th, 1883. GEORGE OLIVER.

To the Editor of THE LANCET.

SIR,—The important observation of Mr. J. F. Nicholson illustrates well the force of Dr. Oliver's advice that it is wise not to trust to any single test for albumen. After verifying the fact mentioned by Mr. Nicholson, it occurred to me that probably some other albumen tests might have the same effect as picric acid, and I found that potassio-mercuric iodide also precipitated a very dilute solution of quinine. This, indeed, was only what might have been expected when one came to think of it, for the analogous compound—the potassio-bismuthic iodide—has already been proposed as a precipitant of the alkaloids. I found that both picric acid and potassio-mercuric iodide precipitated solutions of morphia, pilocarpine, atropine, and strychnia. All the precipitates disappeared with heat except that of liquor strychniæ and potassio-mercuric iodide. Aconitia was precipitated by potassio-mercuric iodide, but not by picric acid.

I am, Sir, yours obediently,

Partick, Glasgow, Nov. 12th, 1883. ROBERT KIRK, M.D.

"NITRITE OF SODIUM AS A TOXIC AGENT."

To the Editor of THE LANCET.

SIR,—As a recent article in THE LANCET on the above subject has excited adverse criticism in the daily newspapers, I venture to ask permission to make an explanation, especially as the purport of the article seems to have been misunderstood. In the early part of last year a paper was published, recommending nitrite of sodium as a remedy for epilepsy, and the case was recorded of an epileptic who took twenty grains three times a day for fourteen days, not only without ill effect, but with marked benefit. I was interested in the subject, because it was stated that nitrite of sodium was allied to nitrite of amyl and nitro-glycerine, but more persistent in its action. Having had considerable experience of this last-named remedy, and having for some years past used it with marked success in the treatment of many diseases, including angina pectoris, pseudo-angina, asthma, neuralgia, megrim, rheumatism, and the various forms of Bright's disease, I obtained some nitrite of sodium, and happening at that time to have under my care several patients suffering from angina pectoris and allied diseases, I hastened to give them the benefit of the discovery, and in the course of the week prescribed it in those various diseases and conditions in which I had found nitro-glycerine useful. I gave it, not in the dose recommended, but in half that quantity. There was therefore no want of caution on my part. In ordinary out-patient practice patients are seen only once a week, and thus it was I prescribed the drug in several cases before I had seen any of the patients a second time. The first man who returned stated, in answer to my inquiries, that the medicine had not affected him in any way. I was not surprised, for I thought the dose too small, and I accordingly increased it to fifteen grains. This, I may say once for all, is the only case in which the dose was increased. The second patient was a man who, as it subsequently appeared, suffered only from a little rheumatism, although at the time the symptoms resembled closely those of angina pectoris. He complained of the effects produced by the medicine, and said it made him "feel giddy." He described other symptoms, but it seemed unlikely that they could have been produced by the drug, for it had been recommended in so much larger doses, and I had myself just seen a man who had taken the very same dose three times a day for a week without making any complaint. I asked the patient how many doses he had taken, and he said only one. I advised him to try it again, but he declined, adding jokingly that he had "a wife and family." I said no more, and he subsequently improved on other treatment, although his case was an obstinate one. The other patients came back one by one, and as they all complained, I soon saw that it was really the medicine that was at fault. This was the first intimation I had had from any source that nitrite of sodium was a toxic agent. I at once and in every case reduced the dose to five grains, half the dose that I had before given, and one-fourth the dose originally recommended. Finding that this still produced unpleasant symptoms, I reduced it still further, giving only three grains, and in this dose I have used it largely during the last twelve months with marked success in many diseases.

I was so astonished by the unexpected effects produced by the drug that I consulted Dr. Ringer on the subject. At that time he had no idea that nitrite of sodium was a toxic agent, and shared my previous belief that it might be given with safety in twenty-grain doses. To clear up the matter, he made some observations on cats, forwarding me the results, and at the same time urging me to publish my cases. I felt that I had no option in the matter, and that to suppress them would be little less than criminal. I wrote the paper under a strong sense of duty, and Dr. Ringer being my senior, I naturally placed his experiments first in order. I wish it to be distinctly understood, however, that the experiments on cats were not made until long after I had observed those symptoms in my patients, and that they were undertaken with the view of throwing light on the disagreeable effects. In every case I used the pure nitrite of sodium, and did not prescribe it until I had a guarantee that it was free from adulteration of any kind. The nitrite of sodium in common use contains a large proportion of the comparatively inert nitrate of sodium.

There is only one other point which I wish to notice. It has been said that the paper was written in a flippant style. This I do not admit. The paper was written with an earnest purpose, and from a strict sense of duty. If the style do appear flippant, it is unwittingly so. The terms I used were the patients' own expressions, and had they been given with the usual quotation marks, I cannot believe the charge of flippancy could ever have suggested itself to anyone. By the light of subsequent comments, the account I gave does seem unnecessarily alarming. As a matter of fact, however, the remarks of the patients were for the most part made jokingly, and certainly without any permanent sense of fear. I am, Sir, your obedient servant,

WILLIAM MURRELL, M.D.

Weymouth-street, W., November 13th, 1883.

To the Editor of THE LANCET.

SIR,—I have read Dr. Murrell's letter of explanation, and cordially subscribe to its terms, and would be glad to be allowed this opportunity of correcting an erroneous statement in the new edition of my "Handbook on Therapeutics." The dose of nitrite of sodium should be small, two or three grains, and not *twenty*, as there stated.

Yours obediently,

Cavendish-place, W., Nov. 1883. SYDNEY RINGER.

*** We have received a letter also from Dr. W. T. Law, stating that in the case he described in the *Practitioner* in June, 1882, in which nitrite of sodium was given in twenty-grain doses without injurious effects, it was subsequently ascertained that the drug was largely adulterated with nitrate. Dr. Law desires it to be understood that his conclusion as to the value of the nitrite was based upon the employment of what was eventually ascertained to be a very impure specimen of the salt.—ED. L.

"TREATMENT OF FRACTURE OF THE PATELLA."

To the Editor of THE LANCET.

SIR,—An error occurs in THE LANCET report of my remarks on Prof. Lister's paper at the Medical Society, and as it makes me misrepresent the published statement of a distinguished American authority on fractures, I shall be glad if you will allow me to correct it. It is stated that I said "Hamilton's statistics showed that the fresh tear occurred generally *after* a period of five months." What I did say was, "Hamilton, from an examination of a large number of cases of fractured patella, had met with twenty-seven instances of refracture, but that only two of them occurred later than five months after the original injury, or about three months after the patient was allowed to get about." What I desired to point out by these figures was, first, the necessity of providing against refracture for some months,

and the danger of allowing the joint to go quite unrestricted after merely eight or ten weeks of treatment; and, secondly, the strength and sufficiency of fibrous union if only time be allowed for the uniting medium to become consolidated.

I am, Sir, your obedient servant,

Mansfield-street, W., Nov. 10th, 1883. HENRY MORRIS.

To the Editor of THE LANCET.

SIR,—In the discussion that took place at the Medical Society on the 5th inst., Mr. Bryant states: "Twenty years ago there can be no doubt the operation [wiring together the fragments] would have been scouted by us all as outside the field of legitimate surgery." All the speakers would lead one to think that the following note by Prof. Cooper of San Francisco in 1861 had escaped their notice—a singular fact, seeing that the Medical Digest is certainly, to my knowledge, in the hands, or rather on the shelves, of some of the speakers. At Section 1763 : 5 of this work is found, *Wire Suture*, Cooper T. 1/61, p. 467 (unluckily it ought to be T. 2/61), on referring to which we read: "Our method of treating transverse fractures of the patella, and one which has thus far been invariably successful, is as follows:—Make a longitudinal incision of sufficient length to expose the fragments, drill their anterior margins with a drill one line in diameter, then pass a silver ligature through the holes, and by crossing the ends and pulling stoutly upon them bring the separated parts together. A knot is then made by twisting the ends of the ligature together, and a bony union *always* takes place." As an essential to success, Prof. Cooper insisted that the wound be healed by granulation. To secure this lint was packed in the wound and changed once a week. Naturally Prof. Cooper's ignorance of the antiseptic treatment detracts nothing from the wisdom of employing such now; still the results seemed to his mind equally satisfactory as those of Prof. Lister. In conclusion, Sir, may I be allowed to express a feeling of surprise that, in those numerous cases where gentlemen avail themselves of the advantages the Digest affords, any acknowledgment thereof is so infinitely rarely made. A week never passes but I can trace the Digest all through many valuable papers, yet only twice or thrice can I recall to mind any hint having been dropped as to the manner in which labour has been lightened and information afforded.

I am, Sir, yours obediently,

South Hampstead, Nov. 10th, 1883. R. NEALE, M.D. Lond.

ON THE ANTIQUITY OF TREPHINING THE SKULL.

To the Editor of THE LANCET.

SIR,—That many operations in surgery were practised in remote times is undoubted, but I think few surgeons realise how very ancient indeed is the operation of trephining, or, as it was formerly called, trepanning, the skull. During recent years some curious discoveries have been made in France and elsewhere conclusively proving that trephining was practised by neolithic man, and, further, that the operation was ofttimes successful. These later stone age men must have inhabited Europe several thousand years ago, and were of course excessively barbarous, ignorant, and superstitious. Indeed it was their very superstition which led them to trephine the skull—so Prof. Broca informs us, and he has given the subject his greatest attention. Trephined human skulls have been found by Dr. Prunières of Toulouse in the cave of Homme Mort in the Department of Lozère, in the caves of La Marne and of Lordes, near Pau, in the Canary Isles, in Algeria, in Mexico, and in Peru. The operators had of course no better instruments than more or less perfectly sharpened flints, and with such rude tools they performed their operation. First a V or T incision was made down to the bone, the flaps were retracted by assistants, and the bone was then persistently scraped until at length an opening was made sufficiently large to expose the brain and its membranes. This opening was a *viaticum* or way of escape for the demons who had taken possession of the body and were causing the epilepsy or insanity, for such were the "cases" which were operated on.

Now, considering the class of case, the desperate nature of the operation, and the barbarous method of performing it, to say nothing of the after-consequences—e.g., hæmorrhage, blood poisoning, erysipelas, the danger of injury to the brain, the want of proper nursing, and bad hygienic surroundings generally,—it is wonderful that any one patient should have recovered; and yet, incredible though it seems to be, Dr. Prunières states that out of twenty skulls in his possession (all of which were trephined during life) nineteen of them exhibit indubitable signs of having recovered from the operation. This is shown by the fact of the edge of the bone having become smooth in consequence of the cells of the diploë having become covered by the newly formed bony tissue.

The discs of bone which were separated from the skull during the operation were looked upon as talismans possessing vast therapeutical power and capable of counteracting witchcraft, and of preserving the possessor of them from disease. These talismans were therefore worn round the neck as amulets, and were considered as of priceless value.

After the death of a patient who had survived the operation, it was considered "only fair" to give the original possessor of the piece of bone so highly prized his own back to him once more. Prof. Broca tells us that this was done in order that the deceased might carry with him into the next world this talisman, and so be preserved from the torments of the evil spirits which had haunted him on earth. This, says Prof. Broca, is the earliest indication we have of a belief in a life beyond the grave. There is a touch of humanity to be discerned both in the operation itself and also in the restoration after death of the precious amulet to its rightful owner. This is the more remarkable when we consider what "untutored savages," if not cannibals, these neolithic men were.—Your obedient servant,

T. FRED. I. BLAKER, M.R.C.S.

Burgess Hill, Sussex, Nov. 1883.

"CYSTIC POLYPUS OF THE RECTUM COMPLICATING PARTURITION."

To the Editor of THE LANCET.

SIR,—The very interesting case described by Mr. P. Engledue Prideaux in THE LANCET of Oct. 13th reminds me of one which occurred in my practice six years ago.

Mrs. B——, aged thirty, was taken in labour with her fourth child on Aug. 6th, 1877. The previous confinements had been natural. Labour not progressing and the pains being weak, I applied the long forceps, and delivered the patient with the greatest ease of a fully developed child in a few minutes. The placenta came away naturally, and I left the patient quite comfortable. About an hour and a half subsequently the husband hurriedly came for me, saying that (according to the nurse) "the patient's bladder had come down." On my arrival I found, to my surprise, a thin, pedunculated, pyriform, semi-transparent cyst, about the size of a fœtal head, hanging from the rectum. The cyst was flaccid, and about half full of fluid, which could not be squeezed back into the rectum. Vaginal examination showed nothing abnormal, and on rectal examination I could not reach the attachment of the pedicle. As at that time there had been some cases where medical men had actions for malapraxis brought against them, I thought it better to get the aid of a brother practitioner, and Dr. Parsons Smith kindly came in answer to my request. We both tried to reduce the cyst, but failed, and then tapped it, drawing off about eight ounces of straw-coloured highly albuminous fluid, after which the collapsed cyst was easily returned. The patient made a good recovery, and was again confined eighteen months later. The further history of the patient is interesting, and for this I am indebted to Dr. Hobson, under whose care she subsequently went.

I am, Sir, your obedient servant,

Croydon, Oct. 1883. T. RUTHERFORD ADAMS, M.D.

SEQUEL OF MRS. B——'S CASE.

MRS. B—— was delivered of her sixth child (male, dead) on August 28th, 1882. Her labour was natural, but after delivery a large ovarian tumour was discovered which, together with the distended uterus, had caused very great discomfort previous to that event. The patient died on October 29th, after lingering for two months with symptoms of chronic peritonitis. The rectum was not examined, as I was not aware then of Dr. Adams' observation. As there

are some points of pathological interest connected with the tumour which I have not yet worked out, I propose bringing these in detail before one of the Societies.

Croydon, Oct. 29th, 1883. J. M. HOBSON, M.D. Edin.

"REFORMS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editor of THE LANCET.

SIR,—The proposal of Mr. Erichsen, quoted in the leading article of your last issue—i.e., that a certain committee should consider generally the charters and bye-laws of the Royal College of Surgeons of England—comes not one minute too early. The membership of the Royal College of Surgeons is legally about the most useless diploma existing, but this fact is not discovered by students until they have spent their time and money, and obtained the diploma. Were it more generally known that the L.R.C.P.Lond. is recognised as a double qualification, many more students would direct their special attention to it, and the Royal College of Surgeons would slowly but surely lose many candidates. It is high time that steps should be taken to secure the proper recognition of the M.R.C.S. as a double qualification; and a bye-law such as exists in some colleges, prohibiting all future diplomates from dragging the profession in the mire by keeping chemists' shops, might very well be inserted.

I am, Sir, yours obediently,

London, Nov. 13th, 1883. M.R.C.S. ENG.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In last Saturday's LANCET there appeared the following statement:—"The day and Sunday schools have been closed at Ryde in consequence of an outbreak of diphtheria amongst the children." I have therefore to ask you kindly to correct this error, as I have ascertained through the courtesy of the medical officer of health for Rye, Sussex, that the above statement has reference to this latter town.

I am, Sir, your obedient servant,

ALFRED WOODWARD,
Medical Officer of Health for the Borough of Ryde, Isle of Wight.

Bloomfield, Ryde, Isle of Wight, Nov. 14th, 1883.

SCOTTISH NOTES.

(From our own Correspondent.)

HEALTH MATTERS IN THE NEW TOWN COUNCILS.

I HAVE before mentioned the general interest attaching to our late municipal elections, as in many cases important works, having for their object the improvement of the public health, were the subjects upon which the chief disputation arose. It is now most satisfactory to state that health reform has made decided advances in consequence of these fights and the other recent discussions, and, though it is unnecessary to go over many of the burghs, I cannot help specially mentioning Aberdeen and Perth. In the first-named place an election of the whole Council was necessary, in consequence of the City Improvements Act (Aberdeen), 1883. A determined effort was made by able men to raise first one cry and then another against the faithful carrying out of the Act, but the result of the election is to give eighteen votes to the "improvement members" and seven votes to the opposition. The Act—supplemented as it must be more than once by the Artisans' Dwellings Act—will be of untold advantage to Aberdeen, and it is to be hoped Lord Provost Mathews and his Council will push vigorously forward after such approval from the ratepayers. Dr. Beveridge has been promoted to a magistrate's chair. In Perth the influence of public opinion has been more quietly brought to bear, for there was not even a contest; but this should not lessen the satisfaction of those who less than a year ago stood in the pillory for advocating exactly the same measures as are now announced in the Lord Provost's speech as the intended work of his three years of office. It has at last struck authorities that diluted sewage is not a suitable water supply for a town, and so it is intended to carry the sewage well past the filter-bed. Unhealthy homes have occasioned such an outcry that the Council have now shown their anxiety to abolish a very large proportion of the slums; and not only is this the case, but men who were formerly cautioned and threatened with legal proceedings are now actually asked in the Provost's speech to kindly favour them with suggestions. Should Lord Provost McLeish find himself able to carry out his proposed schemes, he will do more for the good of the city than any number of such men as recently muddled business and wearied the public with castles in the air.

REGISTRATION IN THE SCOTTISH UNIVERSITIES.

It may be well to remind graduates of the northern universities that new names can be entered on the register of General Councils up till the 30th inst. As there is in many quarters an expectation of a general election before another year passes, it is specially necessary to attend to this matter at this time to avoid disfranchisement. Perhaps the most frequent manner of losing the vote is by forgetfulness in notifying a change of address; such notices also will be received till the 30th inst.

EPIDEMIC DISEASE AT STONEHAVEN AND FINDON.

Stonehaven is at present visited by a very sharp outbreak of scarlet fever, and a good deal of consequent excitement is felt in the district. It appears that the School Boards interested, instead of closing the schools, have caused peremptory orders to be given forbidding the appearance at school of any child from an affected house before securing a medical certificate that the child is free from risk to others. A little further along the coast, at the village of Findon, from which the most popular form of preserved haddock takes its name, typhoid fever has been found to exist in a soil so very suitable that urgent measures are being taken to redrain the place.

UNIVERSITY COLLEGE, DUNDEE.

Already there are hopes that this new institution has so become a pride to Dundee that many of the leading citizens will assist largely in its further endowment and extension. During last week, before Professor Ball delivered one of the Armistead lectures, it was announced that Mr. Armistead, M.P., had set aside a sum of £2000 for the endowment of a scholarship in the college. The intention of the generous donor, it is thought, is to assist students of the highest talent to obtain a three years' course at another university; but much will depend upon the governors of the college, whom he will consult. The terms upon which the scholarship will be provided will be of the most liberal and elastic kind, so that the college authorities will be bound by no strict letter. It may be mentioned that Mr. Armistead is the founder of the course of lectures, one of which Prof. Ball, Astronomer Royal for Ireland, delivered last week, and with such lecturers it is unnecessary to say they have been a great success.

THE LORD RECTORSHIP OF ST. ANDREWS.

It has been rather difficult during the past year to follow all the wanderings of the students of St. Andrews in search of a Lord Rector. A weekly journal could scarcely chronicle all the phases of the movement; and thus it is that Lord Reay, mentioned in my last letter as the likely Liberal candidate, is now no more heard of, as he kindly waives his claims in favour of Mr. Lowell, whose candidature is of course non-political.

BERLIN.

(From our own Correspondent.)

THE "winter semester" has been inaugurated by two commemoration ceremonies, the one of a somewhat grave, the other of a more cheerful, character. The latter was the banquet given on Oct. 20th to the well-known physiologist and philosopher, Dr. Du Bois Reymond, in celebration of the twenty-fifth anniversary of his professoriate. All the larger and smaller stars of our university gathered round the veteran, as well as many of his extern pupils and former assistants. The gathering at the ceremony of unveiling the Wilms Memorial on Oct. 30th was not, on the contrary, limited to the select circle of our high school, with which the deceased had no other connexion than as a permanent member of the examination board. Robert Wilms, in fact, was a mere "surgeon," in the fullest sense. Born

in 1824, he completed his studies in 1846, and after some time spent in travelling he became, in 1847, assistant-surgeon to the large hospital of the Protestant sisterhood called "Bethanien." Fifteen years later the appointment of chief surgeon to this hospital was conferred upon him, and he continued to work there until his sudden and untimely death in 1880. Reticent and possessed of an almost juvenile modesty, he felt that he was not qualified for lecturing or writing; and I do not believe that there exists a line from his pen besides his Dissertation. If, notwithstanding he has obtained a public memorial so soon after his death, he owes the honour to his ethical qualities not less than to his manual skill and diagnostic acuteness. An indefatigable benefactor of the lower as well as of the higher classes, a friendly counsellor rather than a haughty authority with his fellow practitioners, he enjoyed the highest imaginable degree of popularity. During the wars of 1866 and 1870 he accompanied the army as a consulting surgeon-general, and devoted his skill to the benefit of our wounded soldiers. Without creating an actual school he thoroughly educated his assistants. Most of them, as E. Rose (his successor), Schönbron, Küster, and E. Halm, are now in positions which enable them to give effect to and to propagate the golden rules of their master. The colossal bust which is erected in front of the hospital on a small hill covered with turf is modelled by Siemering; it is an admirable likeness, and the Roman toga, which the artist has thought fit to throw over the shoulders, although at first sight looking somewhat strange, becomes well this classic face. The monuments of v. Graefe and Wilms inaugurate a new era of public acknowledgment of medical work in our metropolis, hitherto more abounding in statues of generals and statesmen.

The great attraction during the last six months—our Hygienic Exhibition—which I am sorry to say was not enough visited by English sanitarians, came to a close in the middle of October. It has been a great success from a financial point of view, as well as from the more ideal standpoint of the benefit it has wrought by spreading and fostering the interest for scientific and popular hygiene among all classes of the community. The committee has resolved, with the permission of the exhibitors, to retain the most instructive objects; and this collection may form a substantial basis for the proposed museum of hygiene, which will no doubt be planned on the model of the Parkes Museum. By-the-bye, a special examination in hygiene has recently been made compulsory for the "approbation" of medical students in Germany. At Berlin Prof. H. Hirsch has been nominated examiner in this new department.

The lectures at our university commenced at the end of last month. The most important change in the medical department is the appointment of Prof. Waldeyer of Strasburg as additional teacher of anatomy, Prof. Reichert, the longeval successor of Johannes Müller, becoming restricted to the anatomical museum. Without detracting from Prof. Reichert's former great merits, it must be said that a somewhat dark period in the history of our medical faculty has thus at last been brought to a satisfactory conclusion.

Of our younger lecturers, we are about to lose Dr. Runge, the assistant of Gusserow's clinique, who is merely waiting for the sanction of the Russian Government to his election to the professorship of obstetrics at the University of Dorpat. Eminently well gifted as a teacher, he will not fail to impart to his future pupils the sound doctrines of his chief in this old domain of German science.

The members of the German Cholera Commission are now on their way to India. I think we may be satisfied with the results they obtained during the few weeks of their sojourn at Alexandria, as stated in Dr. Koch's first report to the Imperial Home Department. Meanwhile, a new volume of the "Mittheilungen" will be published very shortly by the director of the Board of Health.

Berlin, November 8th, 1883.

GLASGOW UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.—The following is a list of office-bearers for the present session, as readjusted at a meeting held on the 5th inst., for the purpose of filling up blanks which have occurred during the summer months:—Hon. President: Joseph Coats, M.D. Hon. President elect: Prof. W. T. Gairdner, M.D. President: W. A. Forsyth, M.B., C.M. Vice-Presidents: C. O. Hawthorne and Henry Rutherford, M.A. Treasurer: James Hinshelwood, M.A. Minute Secretary: John Ritchie. Corresponding Secretary: John Macphail.

NEW YORK.

(From our own Correspondent.)

THE legend inscribed over the chair of the President of the New York Academy of Medicine, "One faith and a common altar," was said to have been seen to tremble on Monday night last when the rival factions met to cast their votes on the question of the old or the new code of ethics, the real issue, however, being the maintenance of any code, or entire freedom of the medical profession at least in the State of New York. I have already referred to this matter, but I may remind your readers that the old code is practically the same as that recognised in England, while the new code has been framed so as to permit those who on your side would be termed the regular practitioners to hold consultations with members of the homœopathic persuasion. It is, however, fully understood that the introduction of the new code was nothing but the thin end of the wedge which was to split up all restraint, and that the final abolition of all codes is the ultimate object of the "liberals." That I may not be supposed to be exaggerating the extent of the issue, I may state that whenever the proposition to abolish the code altogether was mentioned cheer after cheer was raised, and in conversation with such men as Dr. James L. Little, it was frankly confessed that perfect freedom and the abolition of all restraint was the aim of the "liberal," or rather, as I should call them, the "radical" medical party. On the present occasion there was very little "talk"—that had been done already; the usual verbal dual between Dr. Flint, jun., and Dr. St. John Roosa being the only attempt at argument. The former is the staunch friend and advocate of the honour and integrity of the profession; the latter is the fluent and ever witty mouthpiece of those who hold opposite views. After the usual wrangle as to formalities, the final vote showed that of the members present the majority were of the "radical" turn of mind, but as a change in the bye-laws and constitution required a three-quarter vote, the minority redeemed the honour of the Academy and saved its reputation for the time being. The majority, however, led by Dr. Loomis, managed to rescind a resolution passed at a previous meeting, by which a test was imposed on new members; this, of course, was with a view to save the Academy from contamination, as the liberals have shown great activity in introducing new members in the various societies, so as to obtain the requisite number of votes to carry their measures. The conservatives call this bribing members of the medical profession, but its legality can hardly be questioned.

Since the meeting of the members of the Academy of Medicine an election of officers for the Cauty Medical Society has taken place. The business opened with the usual formalities, when the announcement was made that a committee advocated the expulsion of Dr. Kane, a young physician of New York City. He professed to cure the opium habit, and was quite an authority on the subject. He knew all the opium "dives" and similar dens in this city, in and out of the Chinese districts, and it was a remarkable experience to make the exploration under his guidance. The Society met ostensibly to elect officers for the following year, but the real issue was that of the old and new codes of ethics. Each side was prepared with a ticket; and I may say briefly that the "new code," or radicals, carried off the honours by a large majority. The radical party, as usual, is the most active and enterprising, and on this occasion brought up eighty new members, good and true, each with entrance fee and one year's subscription in hand, and ready to vote the new code ticket. This question of the codes has passed out of the domain of ethics, and become a mere personal squabble, in which much bitterness is shown on both sides; the regular medical profession is split up into two factions, and the radicals are already losing caste, and are regarded by some as within the camp of the followers of eclectic, homœopathic, and other peculiar systems. I must admit that the advocates of entire freedom in medical practice number among their ranks physicians who are esteemed both as skilled practitioners and men of honour. These men very justly say that they are capable of judging in all cases what is the right course to pursue, and with whom they may consult. Codes, however, are not made to control men of honour; in all professions there exist men who will do anything to make money; on such

men a code of ethics has a salutary effect, and, in any case, in a profession claiming to have "one faith and a common altar," it is well to draw a line showing the boundary of that faith, and to keep that altar from the profane communion of medical quackery.

A curious case of early menstruation is reported by Dr. A. Van Derveer, of Albany, N.Y., being that of a girl two years and seven months of age, who commenced to have a regular menstrual flow when she was four months old. Her mammary glands are as large as small oranges, the mons veneris well developed, external labia large, and vulva well formed. She is bright and intelligent, but irritable at the commencement of the menstrual epoch. Her physical condition is excellent, and she does not evince any erotic tendencies.

The subject of infant's food has been taken up by Prof. Albert R. Leeds of New Jersey, who has made exhaustive analyses of various artificial milk foods and condensed milks. The solution of the problem of providing a perfect artificial food for infants appears to lie in the modification of cow's milk by chemical processes, so as to make it physiologically equivalent to human milk. The results so far obtained are, however, far from complete. The best brands of milk foods are all composed of cereals specially prepared in combination with condensed milk, and possess the common advantage of having a high percentage of albuminoids, fats, and salts. The conversion of the starchy matters into dextrine by previous baking renders them easily assimilated by the previous torrefaction. The addition of the condensed milk has the advantage of making the food pure and safe; for, instead of being coagulated in large cheesy masses in the child's stomach, as would be the case if the condensed milk was given alone and merely thinned with water, the admixture of dextrine and torrefied milk keeps the caseine divided, causing it to form in small flakes, more nearly analogous to those formed from woman's milk. The condensed milk also adds a noteworthy percentage of fat, which is conspicuously absent in other infants' foods. It also adds a certain amount of grape sugar, and increases the percentage of albuminoids and valuable saline matters, especially the phosphates. The principle objection to condensed milk in such preparations, in Professor Leeds' opinion, lies in the fact that it is prepared with cane sugar, having 30 per cent. of that substance, the objection to the cane sugar being that it causes indigestion in the infant using it. The remedy pointed out by Professor Leeds is to prepare the infant's food with condensed milk made by Appert's process, which is without cane sugar. As a home-made infant's food, the preparation advised by the late Dr. J. F. Meigs is recommended, being equal parts of milk, cream, lime-water, and weak arrowroot-water; but Dr. Leeds advises that the amount of milk sugar be raised, and that barley or oat-meal-water be used instead of the arrowroot-water. This preparation provides for the increase of fat to an amount comparable to that contained in human milk.

Obituary.

JOHN DEIGHTON, M.R.C.S., L.S.A.

MR. DEIGHTON, of Cambridge, who succumbed on the 3rd inst. to the effects of the injuries resulting from the carriage accident which befell him on the 17th ult., received his medical education at St. George's Hospital, and became a Licentiate of the Society of Apothecaries in 1841, and a Member of the Royal College of Surgeons in 1842, after which he commenced the practice of his profession in Cambridge, a town with which his family has long been connected. Mr. Deighton was a member of the council for several years prior to 1870, and in 1880 was elected an alderman, in which capacity he would, had he lived, have served the town until 1886. Mr. Deighton's name was recently mentioned in connexion with the mayoralty of Cambridge; although preferring to hold himself aloof from politics, he had never taken a prominent part in the deliberations of the council.

JOHN PARR SCATLIFF, M.D., M.R.C.S.

WE regret to have to announce the death of Dr. J. Parr Scatliff, which took place at his residence (Macaulay House, Clapham-common) suddenly, on the 6th inst., from angina pectoris. Born in 1819, he obtained his M.R.C.S. diploma in 1844, and his M.D. Aberd. in 1855. For many years he carried on a large and lucrative practice in Sloane-street, S.W. He was an active and consistent Christian of unsectarian principles, but was possessed of a child-like faith; he was a staunch supporter of the temperance cause. He leaves a widow and four sons and three daughters. His loss will be deeply deplored by his family, as well as a large circle of friends, to whom he had endeared himself by his kind-hearted interest and the earnest simplicity of his religious life. His funeral, which took place on Saturday last at Brompton Cemetery, was largely attended.

THE SERVICES.

ENGINEER VOLUNTEERS.—1st Middlesex: Richard Marsden Pilkington Low, Gent., M.B., to be Acting Surgeon.

ADMIRALTY.—The following appointments have been made: Deputy Inspector-Generals: Thomas J. Breen, to Jamaica Hospital, vice Fegan; John Brakey, to the *Pembroke*, additional, for temporary service; Henry Fegan, to the Chatham Division Royal Marines, vice T. J. Breen. Fleet Surgeons: Gerald Molloy, to Malta Dockyard, vice Richard Charles P. Lawrenson, deceased; Maxwell Rodgers, Plymouth Division of Royal Marines, vice Gerald Molloy; Stephen Sweetnam, to the *Monarch*, vice Maxwell Rodgers. Staff Surgeon George Henry Madeley, to the *Defence*, vice Fleet Surgeon Stephen Sweetnam. Mr. William Whitworth has been appointed Surgeon and Agent at St. Agnes, vice Mr. Henry Whitworth.

THE ROGERS TESTIMONIAL.

To the Editor of THE LANCET.

SIR,—Will you kindly insert the enclosed third list of subscriptions in this week's LANCET, and oblige, yours truly,

J. WICKHAM BARNES.

Poor-law Medical Officers' Association, 3, Bolt-court, Fleet-street, London, Nov. 14th, 1883.

Morell Mackenzie, Esq., M.D., 19, Harley-street	£5	5	0
Septimus Sibley, Esq., F.R.C.S., 7, Harley-st.	1	1	0
G. G. Whitwell, Esq., M.B., C.M.Ed.	1	1	0
Alfred Carpenter, Esq., M.D., Croydon	1	1	0
Douglas M. Ross, Esq., M.B., 9, Pavilion-parade, Brighton	1	1	0
Dr. Haward, 9, Harley-street	1	1	0
J. Grosvenor MacKinlay, Esq., 15, Stratford-place	1	1	0
J. Murray Lindsay, Esq., M.D., Mickleover, Derby	1	1	0
Thomas Johnston, Esq., Belper	1	1	0
C. T. Aveling, Esq., M.D., Lower Clapton	1	1	0
Lennox Browne, Esq.	1	1	0
J. R. White, Esq., Kelvedon Hatch, Brentwood	0	10	6

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on Monday last:—

Alexander, T. Gray, M.B. Glas., Glasgow.
Barry, T. D. Collis, L.K.Q.C.P. Irel., Liverpool.
Blower, Bernard, L.R.C.P. Lond., Liverpool.
Cardew, G. Schuyler, M.B. Edin., Bath.
Davies, H. A. Bluett, L.R.C.P. Edin., Swansea.
Ellis, Sidney, L.S.A., Arundel, Sussex.
Faulkner, Herbert, Teddington.
Fenwick, H. Marshall, L.R.C.P. Edin., Newcastle.
Giddings, R. Ritchie, M.B. Edin., Edinburgh.
Gilbertson, J. Henry, Hertford.
Hart, Arthur Herbert, L.S.A., Birmingham.
Hutchinson, J. Armstrong, M.B. Durh., Newcastle-on-Tyne.
Johnston, Matthew, L.R.C.P. Edin., Bedford.
Lawrence, S. Cameron, L.R.C.P. Lond., Bournemouth.
Lockwood, Harry, L.S.A., Sheffield.
Macfadyen, Allan, M.B. Edin., Portobello.
Manders, Neville, L.R.C.P. Lond., Marlborough, Wilts.
Ranson, William Edward, L.S.A., Stafford.
Reid, George More, M.D. Edin., Melbourne.
Stafford, William, M.B. Glasg., Glasgow.

Whyte, John Mackie, M.B. Edin., Nairn.
Wigmore, F. Henry, L.S.A., Eccleston-street.
Wilson, J. Grant, L.S.A., Monmouth.

The following gentlemen were admitted Members of the College on Tuesday last:—

Blaxland, Walter, L.R.C.P. Edin., Sydney, New South Wales.
Brown, John Henry, M.B. Edin., Whitby, Yorks.
Cotton, James Milton, M.B. Toronto, Toronto.
Edmunds, Daniel Taylor, L.R.C.P. Edin., Cranbrook.
Graham, George Herbert, L.S.A., Ansley.
Hooper, Henry Walpole, L.R.C.P. Lond., Sevenoaks.
Moore, Hugh William, L.R.C.P. Edin., Brighton.
Mukerji, Upendra Nath, M.B. Edin., Calcutta.
Rook, Albert Edward, L.R.C.P. Lond., Forest Hill.
Smith, Montagu, L.R.C.P. Edin., Weston-super-Mare.
Steedman, John Francis, L.S.A., Wellington, Salop.
Tomson, Walter Bolton, M.B. Durh., Luton, Beds.
Turner, Nathaniel Henry, Redcliffe-gardens.
Vassie, Richard, M.B., M.C. Edin., Lanark.
Williams, Montagu William, L.S.A., Tunbridge Wells.
Wood, J. W. Atkinson, L.R.C.P. Edin., Manchester.

The following gentlemen were admitted Members of the College on Wednesday last:—

Carmichael, William, Manchester.
Crawshaw, Samuel, Wigan.
Edsall, S. B. Alfred, Brixton-road.
Greenwood, Cecil Danforth, L.S.A., Clapham.
Howard, Wilfred, L.R.C.P. Edin., Littleport, near Ely.
Irving, Duncan Bell, L.R.C.P. Lond., Lockerbie, N.B.
Jefferis, James Eddington, Sydney, New South Wales.
Knaggs, Robert Lawford, L.R.C.P. Lond., Putney.
Leaver, Charles Basil, L.R.C.P. Lond., Bayswater.
Milner, Samuel George, L.R.C.P. Edin., Dulwich Wood.
Naylor, John Holliday, L.R.C.P. Edin., Drighlington, Leeds.
Nunnerley, Phillip Jebb, L.R.C.P. Lond., Powis-square.
Salvage, John Valentine, Lower Norwood.
Stevens, Percy Richard, Biggleswade.
Swain, James, Melbourne-square.
Syree, Anton Hugh, Canterbury.
Townsend, Stephen Chapman, Burleigh-street.
Walker, Charles Pope, Blackheath.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 8th inst.:—

T. A. V. Ford and W. J. A. Adye, St. Thomas's Hospital; C. H. Wakeham and W. B. Cosens, London Hospital; B. Shadwell, A. D. Owen, S. E. Ward, and G. R. Williams, St. Bartholomew's Hospital; H. de B. Dwyer, G. S. Clarke, and G. A. Barr, St. George's Hospital; J. E. P. Sparrow and G. F. W. Ewens, King's College; J. H. Stacy, Edinburgh; F. R. H. Potts, Guy's Hospital; P. J. Shopoff, St. Mary's Hospital.

Of the 94 candidates examined during last week, 28 failed to satisfy the Board, and were referred for three, and 3 candidates for six, months' further anatomical and physiological study. At the corresponding period last year there were 90 candidates, of whom 67 passed, and 22 were referred for three and 1 for six months.

The Library of the College will be closed this day (Friday), and also on Friday next, Nov. 23rd, for the purposes of the College examinations.

COLLEGE OF PHYSICIANS IN IRELAND. — At the November examinations the following candidates obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—John Joseph Buggey, Arthur Cole, Cecil Spencer Cronin, Richard J. D'Arcy, C. H. P. D. Graves, Michael Joseph McCartan.
MIDWIFERY.—John Joseph Buggey, Arthur Cole, Cecil Spencer Cronin, Richard John D'Arcy, Charles H. P. Graves, Michael J. McCartan, Jeremiah McMahon, James Meek, James Mitchell, W. L. Symes.

The following gentlemen have been admitted Members this month:—

Thomas George Kerans. | Charles W. McCarthy.
John William Keanedy. | William Hall Owen.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 8th:—

Ellis, Sidney, Brecknock-road.
Hasell, Edward Suter, Spring-Grove, Isleworth.
Long, John William Francis, Stamford-street.
Mackay, Henry, Normanton-road, Derby.

DR. E. SLADE-KING has been chosen Deputy Coroner for North Devon.

SANITARY INSTITUTE OF GREAT BRITAIN.—The autumn congress and sanitary exhibition of this institute will be held in Dublin in the year 1884.

DUBLIN HOSPITAL FOOTBALL MATCH.—The football match which took place last Saturday, in aid of the Dublin Sunday Fund, realised, after paying all expenses, a sum exceeding 50 guineas.

DR. P. W. LONG has been placed on the Commission of the Peace for the City of Dublin.

ROYAL IRISH ACADEMY.—Dr. E. Percival Wright has been elected a Member of Council in the vacancy caused by the retirement of Professor Macalister.

THE proceeds of the Hospital Saturday collection at Wigan this year have amounted to £2960, an increase over the former collection of £1263.

AT Leicester on Monday seventeen persons were summoned for disobedience to the Vaccination Acts. A fine of 10*s.* was inflicted in each case.

COOMBE LYING-IN HOSPITAL, DUBLIN. — The Governors will appoint a Master to this hospital, as a successor to Dr. Kidd, on the 13th December next.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination:—Mr. Henry Wickham, Rufford; Dr. Gilder, Walsham-le-Willows.

SEWAGE FARMING.—By the balance sheet of the Manor Farm, recently presented to the Reading Town Council, it appeared that for the half-year ending Michaelmas, 1883, the net profits, after deducting the landlord's expenses, amounted to £3518.

BAD MEAT.—A general dealer at Easingwold was on Wednesday summoned at the Guildhall Police-court for sending to market eight quarters of beef in a diseased state. The defendant having previously been fined for a similar offence, Sir R. Carden sentenced him to six months' imprisonment.

BEQUESTS.—Mr. James Cuthbert, late of Old-street, bequeathed £500 each to the Royal Hospital for Diseases of the Chest and the Royal Hospital for Incurables.—The Coombe Lying-in Hospital, Dublin, has received a bequest of £400 from Mrs. Hewson.—The Adelaide Hospital has received a donation of £50 from Mr. Gervas Taylor.

NOTTINGHAM GENERAL HOSPITAL. — The 101st anniversary of this institution was celebrated on the 25th ult., when a sermon was preached by the Rev. Canon W. Boyd-Carpenter, after which a collection was made which realised £223. From March 1st to September 30th, 894 patients were under treatment in the hospital, the daily average number of patients in the wards during the past seven months being 135, as against 126·3 for the corresponding period of last year. It was stated in the annual report that funds are required to permit of the twenty or thirty unoccupied beds in the old wing being utilised.

THE DRAINAGE OF SOUTHPORT.—A letter which Dr. S. H. Wright has written to the medical officer of health of Southport on this subject has been published. Dr. Wright alleges that the health of the town is not what that of a health resort should be; that the high rate of mortality is noticeable; that the present system of drainage and drain ventilation is bad now, and likely to become worse in the future; and that there is nothing in the vital statistics of the town to show that improvement in the public health has followed its adoption. He challenges the Town Council of Southport to meet him and, through their responsible medical adviser, discuss these matters.

A PORT SANITARY HOSPITAL.—On the 6th inst., the inscription tablet of the new hospital which is being built by the Corporation of London for the reception of patients discovered on homeward-bound vessels suffering from infectious disease was laid by Mr. C. H. Davis, chairman of the Port Sanitary Committee. The building, which faces the river, is situate not far from the present position of the hospital ship *Rhin*, of which it will take the place. Accommodation will be provided for twelve patients, all of whom, should occasion require, could be isolated. Each patient is to be allowed 2000 cubic feet of air and 144 feet superficial space. With a view to making the hospital impervious to damp, the buildings are being erected on a solid bed of concrete, which will raise the level of the floor of the hospital about a foot and a half above high water mark.

CROYDON GENERAL HOSPITAL.—The Duke of Edinburgh on the 13th inst. laid the memorial stone of the new north wing of this hospital, at which, since its foundation in 1867, 57,228 patients have been treated. The erection of this new wing, which, by permission of His Royal Highness, is to be called "The Royal Alfred wing," has necessitated the use of the reserve fund of £6000, and there yet remains the sum of £3500 indispensable for the completion of the work.

MEATH HOSPITAL INAUGURAL DINNER.—A very pleasant and successful dinner took place last Monday evening in the Shelbourne Hotel, Dublin, for the reunion of old past students and governors of the Meath Hospital and County Dublin Infirmary, under the presidency of Sir George H. Porter, senior surgeon of the institution. As it is the custom of all London hospitals to inaugurate the ensuing session with a dinner on the evening of the day the introductory address is delivered, and as the experiment had never been tried before in Dublin, it was considered by some of the staff of the Meath Hospital that this year would be a very fitting time to inaugurate in Dublin such a custom; and in this laudable effort the "old Meath men" may well be congratulated on the success of their first reunion. Mr. L. H. Ormsby being one of the active organisers of the movement, over forty "old Meath men," including several of the governors of the Hospital, were present.

THE HOSPITALS ASSOCIATION.

THE following is the constitution of the Hospitals Association, as provisionally adopted by the committee:—

1. The Hospitals Association shall consist of gentlemen connected with the various branches of hospital administration.

2. The objects of the Association shall be—first, to facilitate the consideration and discussion of matters connected with hospital management, and, where advisable, to take measures to further the decisions arrived at; and, secondly, to afford opportunities for the acquisition of a knowledge of hospital administration, both lay and medical.

3. The Association shall afford facilities for the reading, discussion, and publication of approved papers; for the delivery of lectures and for the holding of conferences on hospital administration, hospital management, medical relief, medical education in relation to hospitals, free and provident dispensaries, and other kindred subjects; and shall found a library, consisting of works on hospital administration, construction, finance, and statistics.

4. The Association may from time to time acquire by purchase or lease for its purposes the whole or part of any building or buildings upon such terms as may be thought fit, and shall also have power from time to time to sell or surrender any premises which, in its judgment, are no longer required for such objects.

5. The Association shall consist of members and associates, who shall be elected by the Council. Each applicant for admission shall be nominated by two or more members, who shall certify in writing that the candidate is a fit person to be elected a member or associate of the Hospitals Association. The subscriptions of members shall be one guinea, and of associates ten shillings and sixpence, payable annually in advance on the 1st of January in each year. One year's subscription shall be payable on admission, unless the date of admission be later than the 30th of June, when only a half-year's subscription shall be so payable. The subscriptions of members and associates may be compounded for by a payment, at any one time, of ten guineas and five guineas respectively. Members and associates shall be entitled to attend and vote at all meetings of the Association, but members only shall receive gratuitously the published papers or journals of the Association, and be entitled to the use of its library. The Council shall have power to elect as honorary members men of distinction in the practice or literature of hospital administration, medical education, statistics, or other kindred subjects, provided they do not reside within the metropolitan postal district.

6. The control of the Association shall be vested in the Council.

7. A Council shall be chosen annually at the general meeting from the members to conduct the affairs of the Institute; and shall consist of a president, four vice-presidents, a treasurer, and twenty-five members, one-fifth of whom shall retire annually in rotation, the order of rotation in the first instance to be decided by ballot or otherwise. The five retiring members shall not be re-eligible for one year. Every member shall be eligible to fill any of the offices in the Council, but no member shall hold more than one office at a time. The president, four vice-presidents, and treasurer shall *ex officio* be members of the Council. They shall be elected each year, at the annual general meeting, from among the members of the Association. Each shall be eligible for re-election, and shall hold office until his successor is appointed, provided that no office shall be held by the same person for any longer period than five consecutive years. The notice convening the annual general meeting shall state the names of those recommended by the Council for election as president, vice-presidents, treasurer, and as members of Council to supply the places of those retiring.

8. The Council shall have power at their discretion to elect in any year one or more sectional committees—e.g.:—(1) for general administration, (2) for medical administration, (3) for executive management of hospitals. Each sectional committee may consist of not more than twelve members and associates, and may meet once a month from October to April, or oftener, and shall possess the following powers and privileges:—(*a*) The right to elect from amongst their members in each case a chairman and honorary secretary. (*b*) The right to elect one of their number to represent them on the Council during the sitting of the said committee. Three members of a sectional committee shall constitute a quorum. Minutes shall be kept of the proceedings of every sectional committee, which minutes shall be presented and read at the next succeeding meeting of the Council.

9. On any extraordinary vacancy of the office of president, or any officer other than trustee of the Association, or in the Council, a meeting of the Council shall be summoned with as little delay as possible, and shall choose a new president or other officer of the Institute, or member of the Council, as the case may be, to hold office until the next annual general meeting.

10. *Auditors.*—At the annual general meeting in each year two members of the Association, not being members of the Council, shall be elected to act as auditors for the ensuing year. The auditors shall hold office until the next annual general meeting and shall be eligible for re-election.

11. *Trustees.*—The property of the Institute shall be vested in three trustees, and a resolution of the Council shall, in all cases, be a sufficient authority and protection to the trustees for and in respect of any conveyance, transfer, payment, or other act thereby directed. The present trustees are . Each trustee, whether already appointed, or to be appointed, shall hold office until his death, resignation, or removal. Any trustee may retire from office on giving a written notice, addressed to the Council, of his desire so to do. Any trustee may be removed, at a special general meeting, if it shall be determined at the meeting that sufficient cause exists for such removal, and any vacancy in the office of trustees may be supplied from among the members at the same or any other special general meeting.

12. The Council may appoint two or more of their number to be honorary secretaries and engage such paid officers as they from time to time deem necessary.

13. The Council shall meet once a month, or oftener, as may be requisite. Five members to be a quorum.

14. The Council may, from time to time, issue a journal or such other publication as they may think desirable, and for this purpose appoint one of their members to be honorary editor, and engage such paid assistance, and apply in paying the expenses of the journal such part of the funds of the Institute as in their judgment may be necessary.

15. In the case of any member or associate failing to pay his annual subscription, due on January 1st, before March 1st, notice shall be sent to him, or to his banker or agent, by the secretary; and if the subscription is not paid on or before May 1st, he shall cease to be a member of the Association, and his name shall be erased from the books accordingly; but he may be readmitted by the Council upon assigning reasons which they shall deem satisfactory for his failure of payment.

16. Any member or associate may resign on giving notice of his intention in writing to the Council; but no one can withdraw his name from the books of the Association unless his subscription shall have been paid for the year in which the notice of his resignation is received.

17. A majority of not less than three-fourths of the members of the Council present at a meeting, special notice having been given for that purpose, may remove from the books of the Association the name of any member or associate who, in their judgment, shall have been guilty of any act derogatory to his character and reputation, and calculated to bring discredit on the Association, and he shall thereupon cease to be a member of the Association.

18. The ordinary general meetings of the Association shall be monthly or oftener during the session, which shall be from October to May, both inclusive, on such days and at such hours as the Council shall declare. The Council may, when it appears to them necessary, and shall on the written requisition of not less than fifty members of the Association, call a special general meeting of the Association.

19. A general meeting of members or associates shall be held once in every year, at such time as the Council may determine, to receive the report of the Council and the treasurer's accounts, to elect the officers of the Association, and to decide questions concerning its rules and management.

20. All elections, whether by the Council or otherwise, shall be by ballot, and, except where the constitution shall otherwise provide, all elections and all questions shall be determined by a majority of votes.

21. A majority of the members and associates present at a special general meeting shall have power to make, from time to time, any alterations in the constitution not inconsistent with its main object; but no alteration shall be made without notice of the proposed alteration having been given in the notice convening the meeting, nor until the minutes of such meeting have been confirmed at a subsequent general meeting, ordinary or special.

22. All notices of general meetings shall either be delivered at, or sent by post to, the last known address of each member of the Institute ten days at least before the day of the meeting. Every notice of a special general meeting shall specify the object with which such meeting is convened.

23. The Council may, from time to time, make such bye-laws, not inconsistent with this constitution, as in their judgment may be necessary or desirable in the interests of the Institute.

24. All persons admitted as members and associates shall, upon their admission, sign a declaration (in the form annexed) to observe the rules, regulations, and bye-laws of the Institute for the time being in force.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BENNETT, FRED. CHARLES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Okehampton Rural Sanitary District, vice Ash, whose appointment has expired.

BENSON, ARTHUR, F.R.C.S.I., has been appointed Ophthalmic Surgeon to the City of Dublin Hospital, vice Stoney, deceased.

BURD, GEO. VANHOUSE, L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Okehampton Urban Sanitary District.

CARTER, EUSTACE G., M.R.C.S., L.R.C.P.Ed. (late General Infirmary, Leeds), has been appointed Dispensary Surgeon to the Bradford Infirmary, vice Caine, resigned.

GOULD, ALFRED PEARCE, M.B.Lond., F.R.C.S.Eng., has been appointed Surgeon to the Royal Hospital for Diseases of the Chest, vice Walsham, resigned.

HEAD, HENRY, M.D., F.C.P., has been appointed Consulting Physician to Monkstown Hospital, Dublin.

KERBEY, WILLIAM HOLMAN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fifth District of the Bridport Union.

LEWIS, C. J., M.D., M.R.C.S., L.R.C.P., has been appointed Assistant-Surgeon to the Ear and Throat Infirmary, Birmingham.

MACDONALD, GEO. CHILDS, L.R.C.P. & L.M.Ed., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh, for the term of six months.

MALIN, HENRY G., L.R.C.S.I., has been appointed Resident Medical Officer to Monkstown Hospital, Dublin.

MILNE, THOMAS, M.A., M.D., has been reappointed Medical Officer of Health for the Accrington Urban Sanitary District.

O'CONNOR, MAURICE JAMES, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer of the Infirmary, St. George's-in-the-East, vice Cooper, resigned.

PULLIN, THOMAS HENRY STOCKER, M.D. St. And., F.R.C.S.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Sidmouth Urban Sanitary District.

REDWOOD, THEOPHILUS, Ph.D., F.C.S., has been reappointed Public Analyst for the County of Middlesex.

RICHARDSON, H. E., L.R.C.P., L.R.C.S., has been appointed Junior House-Surgeon to the Borough Hospital, Birkenhead, vice C. S. Brewer, L.R.C.P. &c., resigned.

RUSSELL, FRANCIS RUTHERFURD, M.D., C.M.Ed., has been appointed Honorary Assistant Medical Officer to the Royal Surrey County Hospital.

TOULMIN, WILLIAM CALVERT, L.R.C.P.Lond., M.R.C.S., has been appointed an Honorary Surgeon to the Stamford-hill, Stoke Newington, &c., Dispensary, vice Hacon, resigned.

TURNER, NATHANIEL HENRY, M.R.C.S., has been appointed Ophthalmic Clinical Assistant to King's College Hospital.

VOSS, F. H. VIVIAN, M.R.C.S., L.S.A.Lond., has been appointed House-Physician to the London Hospital.

Births, Marriages, and Deaths.

BIRTHS.

DUKE.—On the 8th inst., at The Glen, Lewisham, S.E., the wife of John Challen Duke, M.R.C.S., of a son.

GODSON.—On the 8th inst., at Grosvenor-street, W., the wife of Clement Godson, M.D., M.R.C.P.Lond., of a daughter.

SIMPSON.—On the 11th inst., at Horton-crescent, Rugby, the wife of J. Herbert Simpson, M.D., of a son.

WYLIE.—On the 7th inst., at Skipton-in-Craven, the wife of William Wylie, M.D., of a daughter.

MARRIAGES

JONES—ROXBURGH.—On the 10th inst., at Holy Trinity Church, Paddington, by the Rev. Alfred Ainger, Reader of the Temple, assisted by the Rev. Henry Thompson, Vicar of Aldeburgh, Suffolk, T. W. Carmalt Jones, M.A., F.R.C.S.Ed., of 6, Westbourne-street, Hyde-park, eldest son of the late Thomas Jones, Q.C., to Helen, eldest daughter of Sir Francis Roxburgh, Q.C.

KINCH—HUNTER.—On the 7th inst., at the Parish Church, Whickham, Gateshead, George Henry Kinch, M.R.C.S.Lond., L.R.C.P.Ed., of Ash-next-Sandwich, to Kate Edith, third daughter of J. J. Hunter, J.P., The Grange, Whickham.

KING—DARLOW.—On the 14th inst., at Forest-gate, by the Rev. J. Roberts, Agnes Emma, second daughter of F. W. Darlow, Esq., of Redclyffe House, Plashet, Essex, to Herbert Dove King, M.A., M.B., B.Sc., of Linton, Cambs.

MOORE—POPE.—On the 8th inst., at St. Sidwell's Church, Exeter, Surgeon-Major J. H. Moore, A.M.D., to Jessie, only daughter of John Pope, Esq., The Shrubbery, Exeter.

TIBBITS—RUSSELL—BOWMAN—DOWELL.—On the 10th inst., at St. George's, Hanover-square, by the Rev. W. H. L. Gilbert, M.A., assisted by the Rev. E. Capel Cure, M.A., Rector of St. George's, Herbert Tibbits, M.D., F.R.C.P.E., of Wimpole-street and Highgate, to Arabella, widow of the late Aubrey Russell, and eldest daughter of Charles Dowell. And at the same time and place, William Bowman, of Lee-road, Blackheath, and Cullum-street, City, to Florence Louisa, youngest daughter of the above-named Charles Dowell. Indian and West Indian papers, please copy.

DEATHS.

BROWN.—On the 10th inst., at 3, Hartfield-terrace, Eastbourne, and formerly of Beckenham, Kent, Charles Robert Brown, M.D., aged 37.

HEWSON.—On the 10th inst., at Coton-hill, Stafford, John Dale Hewson, M.D., aged 66.

KANE.—On the 4th inst., at Kingston-on-Thames, William Kane, M.A., L.R.C.P., fifth son of the late Colonel Kane, of Harold's Cross, co. Dublin, aged 72.

ORME.—On the 7th ult., on board the Royal Mail s.s. *Minho*, off Rio, suddenly, Campbell Orme, M.R.C.S., of Bedford-park, London, aged 41.

SCATLIFF.—On the 6th inst., suddenly, at his residence, Macaulay House, Clapham-common, John Parr Scatliff, M.D., M.R.C.S.E., aged 64.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, Nov. 15th, 1883.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Nov. 9	29·70	W.	50	48	77	56	40	·04	Cloudy
,, 10	29·65	N.W.	42	40	69	47	39	·01	Raining
,, 11	29·77	W.	44	42	66	49	36	..	Fine
,, 12	29·78	N.E.	39	37	67	46	35	..	Foggy
,, 13	30·01	N.E.	38	36	65	46	33	..	Foggy
,, 14	30·24	N.E.	39	37	56	44	34	..	Foggy
,, 15	30·09	N.W.	34	33	..	38	32	..	Foggy

Medical Diary for the ensuing Week.

Monday, Nov. 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

MEDICAL SOCIETY OF LONDON.—Dr. Warner, "On Posture as expressing the Condition of the Mind."—Dr. Milner Fothergill, "On some Nervous Derangements of the Heart."

Tuesday, Nov. 20.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—True Bone developed in Primary Tumours unconnected with the Osseous System, in Epithelioma of Cicatrix and in Adenoma of Breast; Charcot's Joint Disease; Pedunculated Adeno-sarcomo of the Skin; Hydatid Cyst in Muscle of Calf (card); Sarcoma of Lower Jaw of Horse (card); Necrosis of the Upper Jaw after Typhoid Fever; Tuberculosis in Birds; Suppurative Pericarditis in Pyæmia; Stomach from a Case of Carbolic Acid Poisoning (card); Suppurative Arteritis; Tongue with extensive Tubercular Ulceration; Fracture of Spine (card).

Wednesday, Nov. 21.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, Nov. 22.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

THE PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. George Murray, "On the Potato Disease."

HARVEIAN SOCIETY.—8.30 P.M. Harveian Lectures: Dr. Broadbent, "On Prognosis in Heart Disease."

Friday, Nov. 23.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—8 P.M. Mr. W. B. C. Treasure, "On Recreation."

CLINICAL SOCIETY OF LONDON.—Dr. Thin, "On Cases of Thickened Epidermis treated by Salicylic Plaster."—Dr. Dawtrey Drewitt, "On a Case of Myxœdema."—Dr. Cayley, "On a Case of Pneumothorax occurring in the course of Typhoid Fever."—Dr. S. West, "On a Case of Complete Recovery from Idiopathic Pneumothorax without Effusion of Fluid."—Living Specimen (8 P.M.): Thrombosis of the Inferior Vena Cava, by Mr. Mansell Moullin.

Saturday, Nov. 24.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

NEW METHOD OF INSULATING WIRE.

BATHS composed of the salts of lead or the alkaline preparations of iron are apparently used to decorate articles of jewellery and other trinkets. M. Widemann has noticed that metallic articles when coloured by these means are no longer able to transmit a galvanic current. A coating of peroxide of lead or iron seems to make such objects perfectly insulated. It is believed that the same method may, with many advantages, be employed to insulate the wires of telegraphs or telephones. The mode of preparation of the insulating fluid is said to be simple. Ten grammes of litharge in a litre of water, to which is added 200 grammes of caustic potash, are boiled for about half an hour. This is allowed to stand, and when the liquor is decanted, the bath is ready for use. The wire to be insulated is connected with the positive pole of a battery, and a small terminal of platinum being connected with the negative pole is plunged in the bath. Finely divided particles of metallic lead are precipitated at the negative end, and the peroxide of lead is deposited on the metallic wire, giving rise to all the colours of the rainbow in succession. The insulation is only perfected, however, when the wire has acquired its final brown-black tint.

Dr. McBride.—The report in question is the "Supplement by the Medical Officer to the Eleventh Annual Report of the Local Government Board," and was issued early this year. It is a parliamentary paper, and can be procured through King and Son, Parliamentary Booksellers, King-street, Westminster, or any ordinary bookseller.

Mr. Hugh P. Dunn.—In an early number.

BLOODLETTING IN URÆMIC COMA.

To the Editor of THE LANCET.

SIR,—The following case may perhaps prove of interest to your readers.

In the middle of the night of Oct. 23rd I was sent for to see a girl, A. B——, aged twelve, whom I found lying in a state of complete coma, with pupils dilated and insensible to light, and external strabismus of the left eye. The first thing that struck me was the girl's white and puffy appearance, and suspecting uræmic coma, I learned on inquiry that for three or four days previously she had passed but little water, had been very white and puffy about the face and hands, and had been vomiting a frothy mucus. There was no urine at hand for me to test, but, believing I was justified in regarding the case as one of uræmic coma, I determined to lose no time, and to bleed at once. She had already had five distinct convulsions, there was very high tension in the pulse, and the coma was becoming more marked between each convulsion. I bled to about eight ounces from the arm, and although when I began the operation she was in a state of complete insensibility, before the bleeding had subsided she had quite recovered consciousness, and answered questions intelligently. I bound up the arm and left directions that the first water passed should be sent me in the morning. This water, on examination, was found to consist of, as nearly as possible, one-half albumen. But the special point of interest in the case to me was that in twenty-four hours after the first examination the urine was quite free from albumen, and on testing it each day afterwards it was found to remain quite free. The girl recovered without another symptom, and is now quite well. I may mention likewise that there was no history of scarlatina.

During the last four or five years I have lost one or two cases from uræmic coma in children after scarlatina. The marked success of the above case has decided me to have immediate recourse to bleeding on the next occasion. I have decided also to give bleeding a trial at the onset of acute Bright's disease, and to watch carefully the result.

I am, Sir, your obedient servant,
JOHN BEATTIE CROZIER, L.R.C.P. Lond.

Elgin-road, St. Peter's-park, W., Nov. 6th, 1883.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the final examination for the diploma of member on the 9th inst., when they were required to answer at least four out of the six questions, including one of the first two, from 1.30 to 4.30 P.M.:—

1. Give the course, relations, and branches of that part of the radial artery which lies between the styloid process of the radius and the palm of the hand.
2. Mention in order the several parts whose condition may be ascertained by digital examination per rectum in both sexes.
3. A child, aged three, attempted to swallow some boiling water: this proved fatal in five hours. In such a case describe the symptoms and the appearances after death.
4. Mention the several courses which an abscess may pursue, and the circumstances which determine them.
5. What are the disorders of the eye which occur in inherited syphilis? Describe the symptoms of each.
6. State the causes of epistaxis, and describe the appropriate treatment in each case.

The following were the questions on Midwifery and the Diseases of Women, submitted to the candidates on the following day, when they were required to answer three out of the four questions from 12.30 to 2 P.M.:—

1. Describe the long forceps, and specify its advantage over the short forceps.
2. What are the dangers arising from implantation of the placenta on the lower segment of the uterus, and how would you combat them?
3. What are the conditions especially apt to cause pyrexia during the puerperal state, and how would you distinguish between them?
4. You are consulted by a patient who has a swelling rising out of the pelvis, and reaching halfway between the pubes and umbilicus. What might such a tumour be, and how would you ascertain its nature?

The following were the questions on the Principles and Practice of Medicine on the same day, from 2.30 to 4.30 P.M., the candidates being required to answer three out of the four questions, including Question 4:—

1. What are the signs, symptoms, causes, prognosis, diagnosis, and treatment of facial neuralgia and sciatica?
2. How do you discover and treat an empyema of the right pleural cavity?
3. What are the signs and treatment of hydatid disease of the liver?
4. Give the composition and doses of the pharmacopœial pills which are aperient.

Dr. Ingle.—The provident dispensaries of Northampton, Leicester, and Coventry are among the best. In Northampton, too, and in York and other towns, there are medical associations of friendly societies which perhaps our correspondent means by the expression "medical provident clubs."

"PUERPERAL CONVULSIONS."

To the Editor of THE LANCET.

SIR,—When a pupil I had the opportunity of seeing several cases of puerperal convulsions (injection under the skin and chloroform were not then used) treated by bleeding alone and early delivery. I cannot call to mind a single fatal case. I have been in practice thirty years and have had many cases of puerperal convulsions under my care; all have been successfully treated by bleeding; sixteen ounces I should consider not a large quantity to take. Owing to the insensibility, often for days, it is impossible to give anything by the mouth. The last case I had was that of a half-starved woman, who had had several children (as a rule convulsions occur in plethoric women and primiparæ), and was apparently a most unfavourable case for bleeding, though successful as any, the woman being out in a fortnight. Bleeding properly performed is the most powerful sedative we have, and I cannot resist prominently mentioning a remedy nowadays too often neglected.

I am, Sir, yours truly,
ROBERT DE'ATH.

Buckingham, Nov. 11th, 1883.

Mr. Milligan's paper will appear in our next.

Mr. H. K. Kane (Lanhorne).—THE LANCET for Sept. 14th, p. 454.

"SWEATING IN PHTHISIS."

To the Editor of THE LANCET.

SIR,—In reference to Mr. Prideaux's letter in your journal of last Saturday, I can fully endorse the satisfactory results he chronicles in the exhibition of the sulphate of atropia for the sweating of phthisis. I first learnt the use of this drug at Victoria-park Hospital, and have continued it whenever occasion offered. I am accustomed to use even smaller doses than he mentions, beginning for an adult at the 1-100th part of a grain. Indeed, I can scarcely remember any case in which more than 1-50th of a grain has been necessary. It is best to prescribe it in a simple pill, and be sure that a careful druggist has the dispensing of it.—I am, Sir, your obedient servant,
ARTHUR FLINT, L.R.C.P. Lond.

Westgate Lodge, Westgate-on-Sea, Nov. 13th, 1883.

SEPARATION OF METALS BY ELECTRICITY.

A VERY ingenious method of separating metals by electrolysis has been perfected by Mr. E. G. Atkins. In this process the alloy is suspended in a bath of dilute sulphuric acid, contained in porous conductive cells, which are placed in tanks containing a solution of sulphate of copper, in which plates of copper are hung. The alloy is connected by means of copper rods with the positive pole of a Gramme dynamo-machine, the copper plates being similarly connected with the negative pole of the machine. The more negative metal (usually gold) not being oxidised, is precipitated, and afterwards removed from the bath, washed, smelted, and run into ingots and bars in the usual way.

PRECAUTIONS AGAINST FIRE IN HOTELS.

THE manager of the Langham Hotel, Portland-place, W., and the architect of the Royal Hotel, Blackfriars, write to assure us that at their establishments respectively ample means are adopted to prevent, as far as possible, the accident of fire, and to secure the safety of inmates in the event of such a calamity arising.

W. F. G. (Chiswick).—A shoulder of mutton contains one-third more bone than a leg does, whilst there is also considerably more fat and connective tissue. A shoulder of mutton at 10*d.* is less economical than a leg of mutton at 1*s.* a lb. To make their values at all equivalent, the shoulder should be sold at 8½*d.*

"A CORONER'S JUSTICE TO MEDICAL MEN AND A WORD ABOUT JURYMEN."

To the Editor of THE LANCET.

SIR,—When I practised in London I recollect being called out in a great hurry by two messengers to a woman said to be dying. On arriving at the house I found her in active labour; of course I had to stay to deliver her, for the door was locked upon me. However, the child was soon born and cried lustily. Finding the character of the house to be rather peculiar, I requested them to procure the aid of the parochial medical officer and declined to attend the patient any further. In a week I was summoned at the inquest upon the before-mentioned child, who had died a few days after its birth without any other medical attendance upon it or upon its unfortunate mother. At the inquest the "intelligent jury" censured me for not continuing my attendance upon the mother and child, although I told them my practice did not lie in that direction; this explanation did not satisfy them. They worked themselves up into a high state of indignation at my supposed neglect. The worthy coroner, I need scarcely add, did not coincide with them. However, I put this question to them: "Gentlemen, would any of you like me to attend your wives knowing I came direct from such a house?" "Certainly not," they all said. So I suppose I escaped a "rider." On another occasion the intelligence of a juryman was well brought to the fore by the following question put to me. It was at an inquest upon a man who had died from the effects of excessive drinking. "Doctor, is there not a large opening from the brain to the stomach?" I said, "I suppose you mean where the pots of beer go down." "Yes," he replied, "certainly." If my memory is not at fault, the coroner at both of the inquests was that highly esteemed and excellent man Sir John Humphreys.

I am, Sir, your obedient servant,
Buckhurst-hill, Nov. 12th, 1883. FRED. C. CORY, M.D.

Dr. Lloyd.—Surely there can be no harm in diffusing information, especially amongst persons engaged in the work of education, on so important a matter.

CASE OF LARGE VESICAL CALCULUS IN A WOMAN.

To the Editor of THE LANCET.

SIR,—The following case is, it appears to me, of sufficient interest to warrant its being placed on record.

R. A——, Mussulman, aged thirty, was admitted into the Civil Hospital at Karachi on April 24th with stone in the bladder. Dilatation of the urethra by metallic dilators and bougies was practised for about a week, until the forefinger could be easily passed into the bladder. On April 30th I introduced a pair of closed lithotomy forceps, and seized the stone, but found it too bulky to be extracted without further enlargement. The urethra was then incised with a probe-pointed bistoury to the extent of about half an inch, and a calculus (phosphate of lime) removed, which measured over four inches in circumference, and weighed 760 grains. The patient made a good recovery, and was discharged a fortnight after quite well, no incontinence of urine having resulted.

I am, Sir, yours obediently,
G. Y. HUNTER,
Oct. 12th, 1883. Surgeon-Major, Bombay Army.

Edinbro'.—The National Hospital in Queen-square, the Hospital for Epilepsy, Regent's-park, or that in Welbeck-street might be suitable for the case.

MALPOSITION OF TOOTH.

To the Editor of THE LANCET.

SIR,—On March 19th I exhibited at the Medical Society a patient with a malposition of tooth closely resembling the curious case in your issue of last week. The tooth has since been extracted, and I propose reading some notes on the case before the Society on Monday, the 12th inst.

I am, Sir, your obedient servant,
Queen Anne-street, W., Nov. 5th, 1883. F. DE HAVILLAND HALL.

MISAPPLIED INGENUITY.

ATTENTION has again been called by M. Girard, the director of the Paris Municipal Laboratory, where much good and useful work is being performed in the way of exposing the multifarious forms of food adulteration, to the manufacture of gooseberry jelly entirely from seaweed, there not being a particle of gooseberry in it. It is coloured with fuchsine or some similar material, and the flavour is given by a compound of five parts of acetic ether, four of tartaric acid, one part of benzoic acid, one of succinic acid, and one of aldehyde and œnanthic acid. M. Girard also mentions the composition of other chemical compounds for imitating the flavours of the strawberry, pineapple, melon, apple, pear, cherry, peach, apricot, and plum.

Medical Officer.—Art. 199 of the General Consolidated Order states that "every medical officer shall be bound to visit and attend personally, *as far as may be practicable*, poor persons entrusted to his care, and shall be responsible for the attendance upon them." In the 7th Off. Cir., 225, it is stated that "the Board are not prepared to say that in ordinary cases the medical officer may not employ, under his own superintendence, his assistant to visit the sick under his care," but his doing so would not relieve him of any portion of the responsibility attaching to the discharge of his duties.

F. T. S. directs attention to and expresses disapproval of the connexion of several medical men with the Civil Service Supply Association. We do not think the profession will suffer much from such a system, which is, however, open to criticism.

"GERMAN MEASLES."

To the Editor of THE LANCET.

SIR,—Having had no inconsiderable experience of rötheln, or German measles, I can fully corroborate the experience of your correspondent, "A. L. H.," as to the great inconvenience of having no popular name for so common a disease as rubella. The name "rose rash" has been already appropriated, and "hives," proposed by Dr. W. Squire, is neither very euphonious nor descriptive. I would venture to suggest "the rubies" as being at once an appropriate and not uneuphonious title. Ruby is a suggestive word, and would be readily caught up by the public. I may, perhaps, also be allowed to dissent from the opinion expressed by Dr. Martin Oxley in his excellent and practical lecture on scarlet fever (THE LANCET, Oct. 27th), that rubella is not a separate disease. Though it has undoubtedly some superficial resemblance to measles, it is, I believe, essentially different—different in its period of incubation, in its method of onset (short premonitory fever or none), different in the appearance of the rash, in the absence of catarrhal symptoms and of sequelæ, and essentially different in that its attack affords no protection against measles, and *vice versâ*. Indeed, I have known several instances of one illness succeeding the other at periods of a few weeks or months. I have little doubt that many of the supposed second attacks of measles are in reality cases of rubella; it is therefore high time that rötheln should be recognised by the public as a separate complaint, and that some distinctive and unobjectionable popular name, such as ruby rash or the rubies, should be found for it.

I am, Sir, yours obediently,
Folkestone, November, 1883. CHAS. E. FITZGERALD.

F. T. H. is referred to the following authors:—Meigs and Pepper, Rilliet and Barthez, Gerhardt, and Vogel. The first of these is perhaps the best.

Rustic should be guided in such questions, at first at least, by the advice of his predecessor.

A. B. C.—We regret we have not the information at hand.

"THE TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—In my letter upon the above subject, which appeared in to-day's issue, I should have stated that the carbolic oil might be more palatable if given in the form of an emulsion, with small doses of liquor potassæ. It is in this form that I have prescribed castor-oil in cases of dysentery. It might also be advisable to add small doses of the solution of morphia. The prescription would thus assume the following shape:—Best olive oil, ℥iss.; liquor potassæ, ℥l. to ℥ij.; solution of morphia, ℥l. to ℥ij.; carbolic acid, gss.; water to six ounces; half an ounce to be taken every second, third, or fourth hour.

I am, Sir, your obedient servant,
Clayton-le-Moors, Nov. 10th, 1883. C. R. ILLINGWORTH, M.D.

Bilirubin.—The details are too meagre to render the insertion of the note of much value. The case does not seem to be marked by very uncommon features.

Mr. H. Lawrence.—The paper is marked for insertion.

"LEECH IN THE LARYNX."

To the Editor of THE LANCET.

SIR,—On page 738 of THE LANCET is reported the case of M. Vieusse, where a leech had fastened itself inside the larynx. Three similar cases are reported in 1875, *vide* Medical Digest, 614:2.

I am, Sir, yours, &c.,
South Hampstead, N.W., Nov. 12th, 1883. R. NEALE, M.D. Lond.

SICK ROOM COOKERY.

THE first of a series of lectures on this subject was given to the nursing staff at the Liverpool Royal Southern Hospital by Mrs. Nolan on the 8th inst. Dr. Cameron, senior physician of the hospital, presided, and in his opening address dwelt on the necessity of the food being properly prepared in order to render it digestible and palatable, and expressed the opinion that hospital patients and patients of the poorer classes of society had a better chance of recovery by the simple diet that was given to them than patients of the higher classes. For the present course of lectures the hospital is indebted to the generosity of Mr. Adamson, the vice-president, and the series will be divided into theoretical lectures and practice lessons. The articles of food dealt with in the first lecture were port wine, egg jelly, custard, steamed fish, and Irish moss, which were followed by a few remarks on cooling drinks and the starch of foods.

SCARLET RHEUMATIC FLANNEL.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers give the public any information of the analysis of modern scarlet flannel, hosiery, and artificial flowers, with which our shop windows are now so full? The system of dyeing scarlet flannel with lac dye or cochineal, during which process some quality is imparted to the flannel, rendering it particularly beneficial in cases of rheumatism, has been abandoned in favour of aniline dye, into the manufacture of which arsenic so largely enters, and from which it is seldom, if ever, free. At the present moment I know of a case of serious skin eruption in a family of children which the doctor attributes to the use of scarlet flannel drawers. As scarlet is said to be the fashionable colour this winter, it is most important to be warned in time.

I am, Sir, your obedient servant,

Oct. 31st, 1883. RHEUMATIC.

"HARMLESS LUNATICS."

To the Editor of THE LANCET.

SIR,—In my letter to you last week on the above subject I am made to state that out of 150 patients already discharged this year, *twenty* had been moved to the workhouse and twenty-six to the care of their friends. The number moved to the workhouse should have been given as *thirty*. I shall be much obliged by your correcting this in your next issue.

I remain, Sir, yours obediently,

S. W. D. WILLIAMS.

County Asylum, Haywards Heath, Nov. 13th, 1883.

ERRATUM.—The case of excision of the rectum at the Sussex County Hospital, reported in our last, was under the care of Mr. Willoughby Furner. The name was misprinted "Turner."

PRESSURE on our space compels us to hold over the letters of Dr. Thomas Barlow, "G. R.," and other correspondents, as well as Reports of Societies and other matter of interest.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Struthers, Aberdeen; Dr. Jas. Braithwaite, Leeds; Mr. F. T. Paul, Liverpool; Dr. Kirk, Partick; Dr. M'Call Anderson, Glasgow; Mr. R. De'Ath, Buckingham; Mr. Hentsch, London; Dr. Collier, Wolverhampton; Mr. Arthur Flint, Westgate; Mr. L. Humphry, Cambridge; Mr. Henry Lawrence, Plymouth; Mr. Trueman Wood, London; Dr. J. A. Philip, Monte Carlo; Dr. M'Bride, Wigtown; Messrs. Essinger and Neuberger, London; Messrs. Calvert and Co., Manchester; Dr. Beaney, Melbourne; Dr. Illingworth, Clayton-le-Moors; Surgeon J. C. Battersby, Colombo; Dr. Whipham, London; Dr. Samuel West, London; Mr. Keetley, London; Mr. R. F. Rand; Mr. Gunning, London; Dr. Slade-King, Ilfracombe; Mr. J. R. Lunn, London; Mr. H. Morris, London; Dr. Stopford Taylor, Liverpool; Dr. C. S. Taylor, London; Dr. G. Johnson, London; Dr. J. Adam, Malling Place; Mr. G. R. Turner, London; Mr. Blakeney, Brisbane; Mr. Hendley, London; Dr. Wm. Macewen, Glasgow; Dr. J. B. Isaac, Broadmoor; Mr. Westcott, London; Mr. Lloyd, London; Mr. Harold Lewis, Bristol; Mr. Jackson, Lewisham; Mr. W. Wallis, London; Dr. F. C. Cory, Buckhurst-hill; Dr. Murrell, London; Dr. Neale, London; Mr. Spencer Watson, London; Dr. M. d'Estrey, Paris; Dr. Booth, Sherburn; Mr. S. B. Brown, Dover; Messrs. Kegan Paul and Co., London; Mr. Birchall, Liverpool; Mr. Knight, Whitehaven; Mr. Markham, Portsmouth; Dr. Fothergill, London; Mr. Frampton, Weston-super-Mare; Dr. Milligan, South Norwood; Mrs. Bamley; Dr. Vincent Richards, Goalundo; Dr. Armstrong, Newcastle-on-Tyne; Mr. Vian, London; Mr. Mosse, London; Mr. Pepper, Yeovil; Dr. Irvine, Liverpool; Dr. Cullingworth, Manchester; Messrs. Bell and Bradfute, Edinburgh; Mr. Young, Glasgow; Mr. Hornebrook, London; Mr. Rampley, London; Mrs. Lauder, Manchester; Mr. Wylie, Belfast; Mr. Leman, Chipping Sodbury; Rev. G. White, Ashburton; Mr. Awylwood; Mr. Armitage, Toranga; Messrs. Butterfield and Son, Northampton; Mr. Davies, Bath; Mr. Wickham Barnes, London; Mr. H. P. Dunn, London; Mr. Jas. Baker, Kalk Bay; Dr. J. V. Bell, Rochester; Dr. Leatham, Liverpool; Dr. Sydney Ringer, London; Dr. Hadden, London; Mr. D. Griffiths, Jersey; Mr. F. J. de Lisle, Hawkes Bay, N.Z.; Mr. Woodward, Ryde; Surgeon-Major Colson, Aden; Mr. W. J. V. Rowe, King William's Town; Dr. J. F. Goodhart, London; Dr. Percy Boulton, London; Dr. Williams; Mr. Bateman, London; Mr. Meadows, Hastings; Dr. Jowers, Brighton; East-ender; Medicus, Slaithwaite; F. A.; K., Rotherham; M. A. B.; Edinbro'; Gold Coast; M.R.C.S. Eng.; A. B.; Young Practitioner; Anacharis; A Charity Governor; Surgeon; A General Practitioner; W. F. G.; J. T., Rhymney; Bilirubin; B.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Sir Henry Thompson, London; Surgeon-Major Spencer, Bengal; Mr. Elliott, Chichester; Mr. Armstrong, Manchester; Messrs. Cornish Brothers, Birmingham; Dr. Andrew, Shrewsbury; Messrs. Oliver and Boyd, Edinburgh; Messrs. Christy and Co., London; Messrs. Wright and Co., Brompton; Miss Barrow, Chester; Mr. Pullin, Tunbridge Wells; Mr. Claxton, Boscombe; Mr. Hawkes, Harrow; Dr. Oliver, Harrogate; Miss Sawyer, Ampthill; Mr. Verity, Dewsbury; Mr. Williams, Aberayron; Mr. Burke, Wakefield; Messrs. Peters and Co., London; Dr. Finch, Colchester; Mr. Davies, Bath; Mr. Stedingk, London; Mr. White, Ashburton; Mr. Deeping, Leicester; Messrs. Chance and Co., Gloucester; Dr. MacLintock, Church Stretton; Mr. De Fraine, Aylesbury; Mr. Davies, Ebbw Vale; Dr. Marsden, London; Mr. Elias, Southport; Messrs. Southall and Co., Birmingham; Mr. Scattergood, Leeds; Mr. Bennett, Liverpool; Dr. Dolan, Halifax; Mr. Hodgson, St. Helens; Mr. Marsh, Hindley; Mr. Garner, Frodsham; Dr. Cooke, Sheffield; Messrs. Squire and Co., London; Dr. Simpson, Rugby; Mr. Brown, Westbourne-park; Dr. King, Clacket; Mr. Sutherland, Farnborough; Dr. Kennard, Lambourne; Mr. Hawthorne, Uttoxeter; Mr. Whiteley, Leeds; Dr. Milne, Accrington; Mr. Deane, Slaithwaite; Mr. Watson, Yarmouth; Mr. Turton, Bury; Mr. Padley, Swansea; Mr. Glenn, London; Mr. Hudson, New Swindon; Mr. Broadbridge, Liverpool; Mr. Row, Droitwich; Box, Weston-super-Mare; A. P. Z.; A. W., Chorley; C. H. S., Tattershall; D. S.; M.D., Hammersmith; Francis; J. B., Alton; Lady Superintendent, Chester; F. T.; Fides, London; R.; Medicus, Mile-end; C. F., Thurnham; W. C. O., Bath; G. S.; C. E. T.; L.R.C.P.E., Ancaster; Principal; Principal, St. Leonards; Medicus, Mildmay-park; &c., &c.

Brightonian, Liverpool Courier, Liverpool Daily Post, Manchester City News, Sunderland Herald, Montreal Weekly Witness, Carmarthen Journal, Nottingham Journal, Cork Constitution, Chambers's Journal, Bristol Mercury, The Planet, Fairplay, Egyptian Gazette, Civil Service Candidate, Western Mail, &c., have been received.

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